

## Sweden

The new pension system, introduced in 1999, applies to people born in 1954 and after. The old and the new systems will cover older workers proportionally: people born 1938-1953 will receive pensions under a mix of the old and new rules. The earnings-related part is based on notional accounts and there is a small mandatory contribution to individual, defined-contribution funded pensions. There is also a pension-income-tested top-up. Occupational pension plans – with defined-benefit and defined-contribution elements – have broad coverage.

### Qualifying conditions

Eligibility for the guarantee pension will be earned with three years' residency. It is possible to get a guarantee pension from age 65.

Maximum guarantee pension is earned with 40 years' residency and is reduced proportionally for shorter periods. The pension can be claimed from age 65.

The standard pension age in the occupational plan for white-collar private workers (the ITP plan) is 65, with an early pension age of 55. There is a minimum entry age of 28.

### Benefit calculation

#### **Earnings-related**

The new earnings-related scheme uses notional accounts. Contributions of 16% of pensionable pay are credited and then up-rated in line with a three-year moving average of economy-wide average earnings. Pensionable pay is defined as earnings less the employee contribution to the pension system (i.e. to both the notional accounts and the premium pension) of 7% of gross earnings, giving an effective contribution rate on gross earnings of 14.88% to the notional-accounts system. Contributions are only levied when annual earnings exceed a small floor of SEK 16 600 in 2004, less than 5% of average earnings, although they are due on the whole of earnings for all people earning above the floor. There is a ceiling to benefits calculated in terms of pensionable earnings of SEK 317 500 in 2004. However, this again relates to pensionable earnings, giving an effective ceiling relative to gross earnings of SEK 341 400 in 2004 (around 130% of average earnings). Employer contributions are also paid only to the ceiling, but there is an additional tax on earnings above the ceiling. This tax has the same percentage as the pension contribution but goes directly to the central government budget. It does not accrue any pension rights.

The notional accounts are increased every year by the distribution of the pension balances of deceased persons of the same age as the survivors (inheritance gains). The inheritance gains from people who die before the earliest possible retirement age (61 years) are those actually arising. After this age the inheritance gains factor is estimated on the basis of the mortality observed for an earlier period (computed from five year unisex mortality tables).

At retirement, the accumulated notional capital will be converted to an annuity. This calculation will use a coefficient dependent on individual retirement age and contemporaneous life expectancy (based on the previous five year unisex mortality tables). A real discount rate of 1.6% a year will be assumed in this calculation. Illustrative values for the annuity coefficient at age 65 are 15.4 for 2000 rising to 16.8 by 2020 and 17.4 by 2040.

The annuity coefficient is currently 18.0 for retirement at 61 and 12.8 at age 70 for people born in 1940.

After retirement, pensions are uprated with the increase in nominal average earnings less the imputed interest rate in the annuity divisor of 1.6%.

There is also a “balance mechanism”: if assets (the buffer fund plus the estimated value of assets in the form of contribution revenues) fall below liabilities (accrued notional pension capital and capital value of outgoing pensions), then indexation of pensions in payment and returns credited to notional accounts are reduced by the ratio of assets to liabilities. The balancing ratio is now close to the point at which the automatic balancing mechanism would be activated (1.0097 in 2003, 1.0014 in 2004 and 1.0044 in 2005). (The balance ratio for year  $t$  is used to calculate the balance number or the need for activating the balancing mechanism in year  $t+2$ . An activated balancing mechanism would mean lower replacement rates from the national system but could also produce higher results when the pension system recovers and the balance figure increases (the balance index can exceed the income index during the recovery period).

For modelling purposes, the annuity coefficients are calculated using the above rules and the relevant mortality data from the UN/World Bank population database. It is assumed that the balance mechanism does not affect the uprating of benefits.

### **Minimum**

The “guarantee pension” is an income-tested top-up for people with low levels of benefit from notional accounts. For a single person, the guaranteed benefit in 2004 was SEK 83 709 for a single pensioner born after 1938 or 33% of gross average earnings.

The guarantee pension is withdrawn at 100% against the first SEK 49 518 (2004) of income, for a single person, from the earnings-related pension, thereafter at 48%. This threshold is equivalent to 20% of average earnings. Only when earnings-related pension exceeds SEK 120 651 – nearly 50% of average earnings – is entitlement to the guarantee exhausted.

The guarantee level is price indexed under current legislation. However, the baseline assumption in the modelling for all countries is that the value of safety-net retirement benefits will, over time, tend to track average earnings rather than decline relative to general living standards.

There is also a housing benefit that covers 93% of housing costs up to a maximum of SEK 5 000 per month for a single pensioner. The benefit is an important part of the minimum living standard for Swedish pensioners. This means-tested benefit is not included in the modelled calculations.

### **Defined contribution**

A further 2.5% of pensionable income (giving an effective contribution rate against gross earnings of 2.325%) will be paid into personal pension accounts: the premium pension. People have a broad choice of where these funds are invested.

At retirement, people have a choice over the way benefits are withdrawn. First, people can convert the pension into an annuity to avoid investment risk. Alternatively, people will be able to choose a variable annuity, where their funds continue to be invested by their chosen fund manager. These annuities do not have a guaranteed value. The principle of the pension calculation in this case is that the value of the account is divided by an annuity

divisor (based on estimated average life expectancy) and the pension benefit is credited with an estimated future interest rate of 3% minus administrative costs. If returns exceed 3%, then either an additional payment is made or the balance of the account is higher and so, therefore, is the base for calculating the annual pension.

### **Quasi-mandatory occupational**

The occupational schemes together are estimated to cover almost 90% of employees. There are only four major occupational schemes. The modelling uses the ITP scheme for white-collar workers, which mixes defined-benefit and defined-contribution elements.

The defined benefit is 10% of final salary on earnings up to a ceiling specified as 7.5 times the income base amount or SEK 317 250 in 2004. However, this threshold is in practice lower than the effective ceiling to the public scheme because it applies to gross earnings rather than pensionable earnings. Between this threshold and around 3.1 times average earnings, the full-career replacement rate is 65%; and from around 3.1 to 4.6 times average earnings, 32.5%. A full pension is earned with 30 years' contributions from an entry age of 28. Shorter tenures result in a proportionally reduced benefit.

Pensions in payment are adjusted at the discretion of the ITP board. However, recent increases have been broadly in line with price inflation and so this procedure is assumed in the modelling.

The ITP also has a defined-contribution component, which receives a contribution of 2% of gross earnings. The modelling assumes that this is withdrawn at the normal pension age in the form of a price-indexed annuity. The entry age is again 28.

The ITP plan has been recently renegotiated and the new scheme applies to those born 1979 or later. The new scheme is a defined-contribution with a contribution of 4.5% of gross earnings up to 7.5 income base amounts (SEK 333 750 in 2006) and 30% of gross wages above this limit. This system has not been modelled in the calculations.

### **Early retirement**

Retirement is possible from age 61 in the public pension scheme (both the income pension and the premium pension). There is no fixed retirement age. The notional-accounts and annuity calculations provide an automatic actuarial reduction depending on the age of retirement.

The income-tested guarantee pension cannot be claimed before 65. If the notional-accounts pension is withdrawn before or after age 65, the guarantee pension is still calculated as if the notional-accounts pension had been withdrawn at age 65.

It is possible to draw the ITP occupational pension from age 55. There is a reduction in benefits for pensions claimed before age 62. For retirement at 62 or above, the full occupational pension is paid as if contributions were paid until age 65, though reduced by 0.5% per month that the pension is withdrawn earlier than the age of 65.

### **Late retirement**

It is possible to defer the notional accounts pension with no upper age limit, again with automatic actuarial adjustments.

It is possible to defer the ITP occupational pension after age 65. No additional pension rights can be accrued after age 65.

It is possible to combine work and pension receipt. Pensions can be withdrawn partially (at 25, 50 or 75% of the full pension). The guarantee pension is adjusted against other pensions from the Swedish old-age pension system and from comparable foreign national pensions, but is not reduced by wage income, capital income, occupational pension or private pension insurance. Thus, it is also possible to combine work with receipt of the guarantee pension.

### Pre-reform scenario

The reform of the public pension system was introduced in 1999. The coverage of the old and new systems is described above.

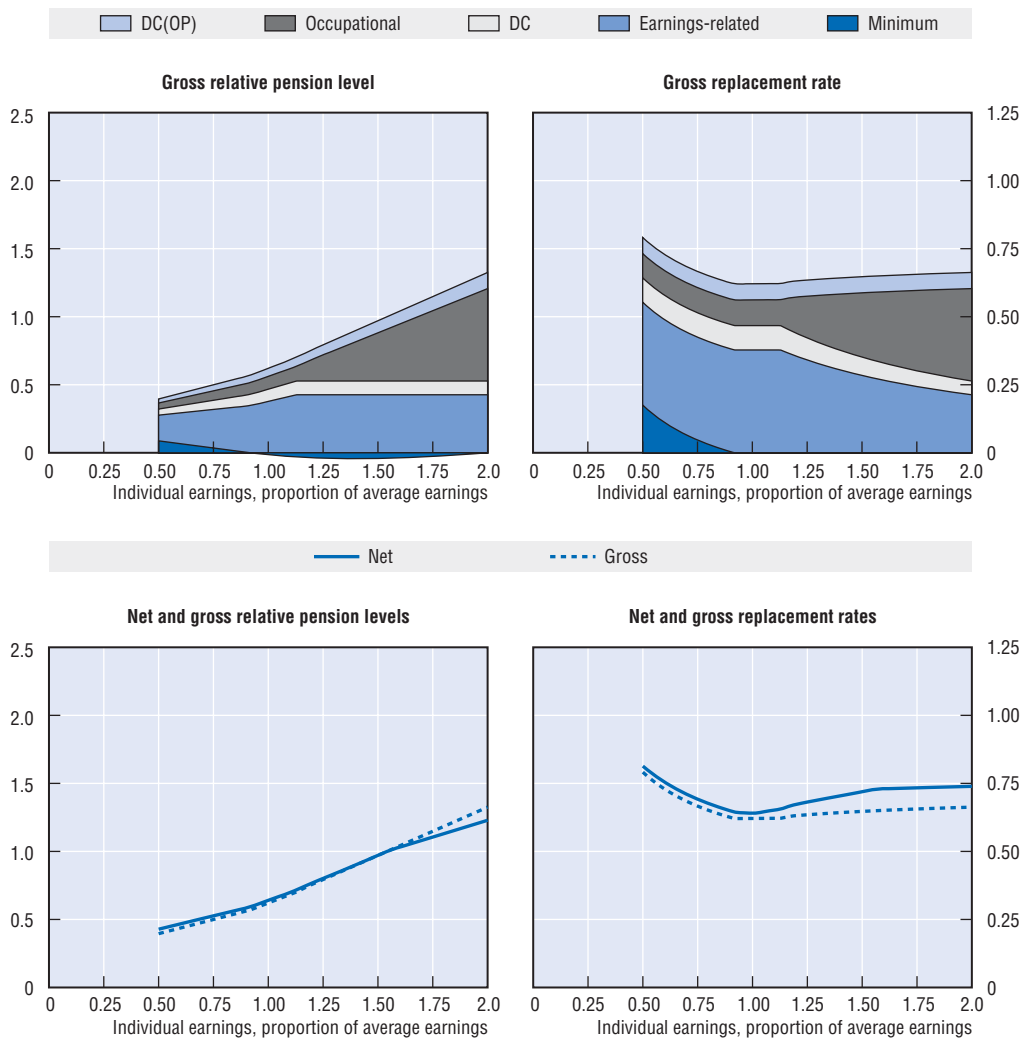
The old system had two tiers. The first was a basic pension subject to residency (40 years) or contributions (30 years) with proportional reductions if the number of years fell short of the requirement. The pension value for a single person was 96% of the price base amount, the latter being SEK 39 300 in 2004. The price base amount is indexed to prices.

The earnings-related tier was based on a points system. Pension receipt required at least three years' contributions. The pension value was 60% of the base amount (at the time of reaching pension age) multiplied by the average number of points in the 15 years with the highest points. In turn, the number of points was defined as earnings less the contemporaneous base amount divided by the contemporaneous base amount. (Note that since the base amount was price indexed and the formula depended on both the contemporaneous and the final base amount, then this policy is equivalent to prices valorisation.) The ceiling to pensionable earnings was 7.5 price base amounts. A full pension required 30 years of contributions with proportional reductions for shorter contribution histories. Pensions in payment under the pre-reform system were indexed to prices. Early (to 61) and late (to 70) retirement was possible with adjustments. These were 0.5% per month (6% per year) for early retirement and 0.7% per month (8.4% per year) for late retirement.

The pre-reform pension system also had a pension supplement, payable to those with little or no earnings-related pension. This was 0.56 price base amounts (SEK 21 565 in 2002). It was withdrawn against the earnings-related pension (not other sources of income).

As part of the reform package introducing the guarantee pension, tax concessions for older people were withdrawn. In 2002, older people were entitled to a special income-tax deduction of between SEK 11 104 and SEK 59 688 (depending on pension income). This extra deduction was withdrawn at 66.5% of income above the minimum pension level, implying no special deduction for pensioners with incomes above SEK 132 605.

### Pension modelling results: Sweden



Men	Median earner	Individual earnings, multiple of economy-wide average				
		0.5	0.75	1	1.5	2
Gross relative pension level (% average gross earnings)	54.2	39.6	50.0	62.1	97.1	132.5
Net relative pension level (% net average earnings)	56.6	42.8	52.7	64.0	97.1	122.9
Gross replacement rate (% individual gross earnings)	63.7	79.1	66.6	62.1	64.7	66.3
Net replacement rate (% individual net earnings)	66.2	81.4	69.2	64.0	71.9	73.9
Gross pension wealth (multiple of individual gross earnings)	10.2	12.6	10.7	10.0	10.3	10.5
Net pension wealth (multiple of individual gross earnings)	7.4	9.5	7.8	7.2	7.2	6.8
	8.5	10.9	9.0	8.2	8.2	7.8

### Pension modelling results: Sweden, pre-reform scenario

Men	Median earner	Individual earnings, multiple of economy-wide average				
		0.5	0.75	1	1.5	2
Women (where different)						
Gross relative pension level (% average gross earnings)	67.7	41.5	60.2	78.9	115.1	150.6
Net relative pension level (% net average earnings)	69.2	44.7	62.2	79.8	110.8	135.5
Gross replacement rate (% individual gross earnings)	79.6	83.1	80.3	78.9	76.8	75.3
Net replacement rate (% individual net earnings)	81.0	84.9	81.8	79.8	82.0	81.5
Gross pension wealth (multiple of individual gross earnings)	12.5 14.2	13.0 14.8	12.6 14.3	12.3 14.1	12.0 13.7	11.8 13.4
Net pension wealth (multiple of individual gross earnings)	8.9 10.1	9.8 11.1	9.1 10.3	8.7 9.9	8.1 9.2	7.4 8.4

## Foreword

**T**his report provides indicators for comparing pension policies across OECD countries. It gives estimates of the level of pension people will receive if they work for a full career and if today's pension rules stay unchanged.

Monika Queisser and Edward Whitehouse of the Social Policy Division of the OECD's Directorate for Employment, Labour and Social Affairs prepared the report. Rie Fujisawa and Edward Whitehouse were responsible for the pension modelling and the analysis of the tax position of pensioners. Anna Cristina D'Addio and Jongkyun Choi assisted in finalising the report.

National officials provided invaluable, active assistance in collecting information on their countries' pension and tax systems. The results have been confirmed by national authorities with the exception of those for Italy, which are based on the OECD's interpretation of parameters and rules provided by the government.\*

Numerous OECD colleagues provided guidance and information, particularly Mark Pearson, Martine Durand and John Martin. The OECD private-pensions team in the Directorate of Financial and Enterprise Affairs – particularly Fiona Stewart and Juan Yermo – provided useful input to the special feature on private pensions. Delegates to the OECD Working Party on Social Policy advised on modelling procedures and development of indicators for cross-country comparisons of pension systems. They also gave constructive comments on earlier drafts.

The report is the product of a joint project co-financed by the European Commission and the OECD; the project also benefited from a financial contribution made by the government of Switzerland.

The OECD pension models use the APEX (Analysis of Pension Entitlements across Countries) infrastructure originally developed by Axia Economics, with the help of funding from the OECD and the World Bank.

\* Italy has expressed serious doubts about the adequacy of data used in the report, and consequently about the comparability of results. In particular, baseline assumptions about labour market entry ages and career length (respectively, 20 and 45 years) are different from those agreed in a comparable exercise undertaken at the EU level, and differ from current Italian labour market norms. Italy thinks interpretations based on these data may be misleading.

## Structure of the Report and Methodology

The general approach of *Pensions at a Glance* is a “microeconomic” one, looking at prospective individual entitlements under all 30 of OECD member countries’ pension regimes. This method is designed to complement alternative comparisons of retirement-income systems: long-term fiscal and financial projections (for example, Dang *et al.*, 2001; and European Union, 2006) and analysis of income-distribution data (such as Förster and Mira d’Ercole, 2005; and Disney and Whitehouse, 2001).

The report is divided into three main parts. Part I presents the information needed to compare pension policies in a clear, “at a glance” style. It starts by showing the different schemes that together make up national retirement-income provision. Next, there is a summary of the parameters and rules of pension systems.

This is followed by eight main indicators that are calculated using the OECD pension models.

- The first two are the most familiar to pension analysts. Both are replacement rates, *i.e.*, the ratio of pension benefits to individual earnings. These are given in gross and net terms, taking account of taxes and contributions paid on earnings and on retirement incomes. Two analyses of the sensitivity of the gross replacement rate follow. The first looks at individuals who enter the pension system later than the baseline assumption, while the second considers the importance of investment returns in pension systems with defined-contribution (DC) components.
- The next two indicators are pension wealth, again given in gross and net terms. Pension wealth is a more comprehensive measure of pension entitlements than replacement rates because it takes account of pension ages, indexation of pensions to changes in wages or prices and life expectancy.
- Countries differ in the way that their pension systems aim to provide an old-age safety-net or replace a target share of pre-retirement income. The balance between these two is explored by the next pair of indicators: the first on the progressivity of the pension benefit formula and the second on the link between pension and earnings.
- The final two indicators aim to summarise the pension system as it affects individuals across the earnings distribution, showing the average pension level, pension wealth and the contribution of each component of the retirement-income system to overall benefits.

Two special chapters form Part II of this report. They cover pension reforms and private pensions, respectively. Both of these analyses use the OECD pension models to explore more deeply the central issues of pension policy in national debates. The framework of *Pensions at a Glance* is forward-looking, focusing on future pension entitlements of today’s



workers. However, the past decade has seen intense reform activity in the world of pensions and retirement. The first special chapter looks at what countries did and how this is likely to affect future benefits. A number of these reforms have increased the role of the private sector in pension provision. The second special chapter identifies the complex range of private retirement arrangements and quantifies the savings effort individuals will have to make to maintain standards of living in retirement.

Finally, Part III provides detailed background information on each of the 30 countries' retirement-income arrangements. These include pension eligibility ages and other qualifying conditions; the rules for calculating benefit entitlements; the treatment of early and late retirees; and more detailed information on the pre-reform scenarios explored in the special chapter on pension reforms. The country studies summarise the national results in standard charts and tables.

The remainder of this section describes the methodology used to calculate pension entitlements. It outlines the details of the structure, coverage and basic economic and financial assumptions underlying the calculation of future pension entitlements on a comparative basis.

### **Future entitlements under today's parameters and rules**

The pension entitlements which are compared are those that are currently legislated in OECD countries. Changes in rules that have already been legislated, but are being phased-in gradually, are assumed to be fully in place from the start. Reforms that have been legislated since 2004 are included where sufficient information is available (in Portugal, for example). Some changes (such as the increase in pension age in Germany and the reform package in the United Kingdom) have not been finalised or were finalised too late for inclusion.

The values of all pension system parameters reflect the situation in the year 2004. The calculations show the pension entitlements of a worker who enters the system today and retires after a full career. The results are shown for a single person only.

### **Career length**

A full career is defined here as entering the labour market at age 20 and working until the standard pension-eligibility age, which, of course, varies between countries. The implication is that the length of career varies with the statutory retirement age: 40 years for retirement at 60, 45 years for retirement at 65, etc. As the results can be sensitive to the career-length assumption, calculations are also made for situations where workers enter at age 25 and so retire with five years less than a full career.

### **Coverage**

The pension models presented here include all *mandatory* pension schemes for private-sector workers, regardless of whether they are public (i.e. they involve payments from government or from social security institutions, as defined in the System of National Accounts) or private. For each country, the main national scheme for private-sector employees is modelled. Schemes for civil servants, public-sector workers and special professional groups are excluded.

Systems with near-universal coverage are also included provided they cover at least 90% of employees. This applies to schemes such as the occupational plans in Denmark, the Netherlands and in Sweden. An increasing number of OECD countries have broad coverage of voluntary, occupational pensions and these play an important role in providing retirement incomes. For these countries, a second set of results is shown with voluntary pension schemes in the special chapter on private pensions.

Resource-tested benefits for which retired people may be eligible are also modelled. These can be means-tested, where both assets and income are taken into account, purely income-tested or withdrawn only against pension income. The calculations assume that all entitled pensioners take up these benefits. Where there are broader means tests, taking account also of assets, the income test is taken as binding. It is assumed that the whole of income during retirement comes from the mandatory pension scheme (or from voluntary pension schemes in those countries where they are modelled).

Pension entitlements are compared for workers with earnings between 0.5 times and twice the economy-wide average. This range permits an analysis of future retirement benefits of both the poorest and richer workers.

### Economic variables

The comparisons are based on a single set of economic assumptions for all 30 countries. In practice, the level of pensions will be affected by economic growth, wage growth and inflation, and these will vary across countries. A single set of assumptions, however, ensures that the comparisons of the different pension regimes are not affected by different economic conditions. In this way, differences across countries in pension levels reflect differences in pension systems and policies alone.

The baseline assumptions are:

- real earnings growth: 2% per year (given the assumption for price inflation, this implies nominal wage growth of 4.55%);
- individual earnings: assumed to grow in line with the economy-wide average. This means that the individual is assumed to remain at the same point in the earnings distribution, earning the same percentage of average earnings in every year of the working life;
- price inflation: 2.5% per year;
- real rate of return after administrative charges on funded, defined-contribution pensions: 3.5% per year;
- discount rate (for actuarial calculations): 2% per year (see Queisser and Whitehouse, 2006 for a discussion of the discount rate);
- mortality rates: the baseline modelling uses country-specific projections (made in 2002) from the United Nations/World Bank population database for the year 2040;
- earnings distribution: composite indicators use the OECD average earnings distribution (based on 18 countries), with country-specific data used where available.

Changes in these baseline assumptions will obviously affect the resulting pension entitlements. The indicators are therefore also shown for alternative assumptions regarding the rate of return on funded defined-contribution schemes. The impact of variations in economy-wide earnings growth, and for individual earnings growing faster or slower than the average, was shown in the first edition of *Pensions at a Glance* (OECD, 2005)

The real rate of return on defined-contribution pensions is assumed to be net of administrative charges. In practice, this assumption might disguise genuine differences in administrative fees between countries (see Whitehouse, 2000 and 2001 for an analysis).

The calculations assume the following for the pay-out of pension benefits: when DC benefits are received upon retirement, they are paid in the form of a price-indexed life annuity at an actuarially fair price. This is calculated from mortality data. Similarly, the notional annuity rate in notional accounts schemes is (in most cases) calculated from mortality data using the indexation rules and discounting assumptions employed by the respective country.

## Taxes and social security contributions

Information on taxes and social security contributions which were used to calculate the net indicators for 2002 were included in the country chapters in the first edition of *Pensions at a Glance* (OECD, 2005). The tax and social security contribution rules and parameters have been updated to 2004 but are not repeated in this volume for reasons of space (Fujisawa and Whitehouse, forthcoming 2007, provides more information).

The modelling assumes that tax systems and social-security contributions remain unchanged in the future. This implicitly means that “value” parameters, such as tax allowances or contribution ceilings, are adjusted annually in line with average earnings, while “rate” parameters, such as the personal income tax schedule and social security contribution rates, remain unchanged. General provisions and the tax treatment of workers for 2004 can be found in the OECD report *Taxing Wages* (OECD, 2006). The conventions used in that report, such as which payments are considered taxes, are followed here.

## Average earnings

Starting with this edition, *Pensions at a Glance* uses a new and more comprehensive measure of average earnings corresponding to an “average worker” (AW). This is broader than the previous benchmark of the “average manual production worker” (APW). This new concept was introduced in the report *Taxing Wages* (OECD, 2006) and also serves as benchmark for *Benefits and Wages* (OECD, 2007).

The reasoning behind the change was that a manual worker in the production sector is not representative of the “typical taxpayer”, given the steady decline in manual employment in manufacturing in most OECD countries. The new base for calculating average earnings includes more economic sectors and both manual and non-manual workers. The concept and definition of earnings, however, remains the same: gross wage earnings paid to average workers, measured before deductions of any kind, but including overtime pay and other cash supplements paid to employees.

Table 0.1 reports average earnings levels under the old (APW) and new (AW) definition, for the year 2004. Only three countries (Ireland, Korea and Turkey) are not yet able supply earnings data on the broader basis and so the modelling is based on the old, APW measure of average earnings.

The effect of broadening the types of workers covered has very different effects on measured average earnings in different OECD countries. In 19 of the 27 countries for which new, AW data are available, these are *higher* than average earnings under the previous, APW definition but the size of the difference varies greatly (see Figure 0.1). The change in definition increases measured average earnings by 30% or more in six countries (Austria,

**Table 0.1. OECD measures of average earnings, 2004**  
National currency and USD at market price and purchasing-power-parity exchange rates

	OECD measure of average earnings				Exchange rates with USD	
	Old – National currency (APW)	New – National currency (AW)	New – USD, market price	New – USD, PPP	Market price	PPPs
Australia	52 777	48 827	35 922	35 917	1.36	1.36
Austria	24 946	32 872	40 842	37 872	0.80	0.868
Belgium	32 281	35 578	44 205	41 151	0.80	0.865
Canada	40 912	38 945	29 933	31 269	1.30	1.25
Czech Republic	213 573	209 489	8 153	14 936	25.69	14.03
Denmark	323 900	316 500	52 860	37 684	5.99	8.40
Finland	29 152	31 539	39 186	32 372	0.80	0.974
France	23 087	29 549	36 713	32 199	0.80	0.918
Germany	34 088	41 046	50 998	45 898	0.80	0.894
Greece	12 525	17 360	21 569	24 996	0.80	0.695
Hungary	1 262 712	1 697 268	8 377	13 682	202.61	124.05
Iceland	2 849 554	2 770 000	39 463	29 461	70.19	94.02
Ireland	30 170	n.a.	37 485	30 321	0.80	1.00
Italy	23 044	22 053	27 400	25 628	0.80	0.861
Japan	4 223 100	4 943 208	45 708	37 139	108.15	133
Korea	27 356 688	n.a.	23 888	34 974	1 145.20	782
Luxembourg	32 586	39 171	48 668	42 649	0.80	0.918
Mexico	66 432	76 332	6 767	10 446	11.28	7.31
Netherlands	32 457	37 026	46 003	41 300	0.80	0.897
New Zealand	41 778	39 428	26 129	26 793	1.51	1.47
Norway	314 523	366 161	54 332	41 005	6.74	8.93
Poland	26 745	29 263	8 015	15 858	3.65	1.85
Portugal	9 372	12 969	16 113	18 344	0.80	0.707
Slovak Republic	190 000	200 722	6 228	11 679	32.23	17.19
Spain	17 913	19 828	24 635	26 215	0.80	0.756
Sweden	251 282	300 814	40 949	32 773	7.35	9.18
Switzerland	64 419	70 649	56 849	40 900	1.24	1.73
Turkey	13 959	n.a.	9 789	16 788	1.43	0.831
United Kingdom	20 560	27 150	49 747	43 881	0.55	0.619
United States	34 033	30 355	30 355	30 355	1.00	1.00

n.a.: Not available.

AW = average wage.

APW = average production worker.

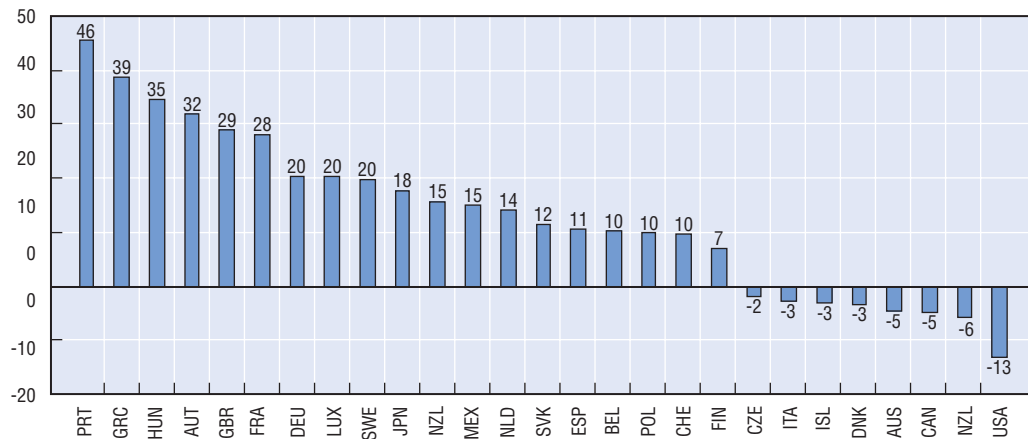
PPP = purchasing power parity.

Note: Monetary values for Turkey divided by 1 000 000. Average earnings are not available on the AW measure for Ireland, Korea and Turkey.


Source: OECD (2006), p. 13; and OECD Main Economic Indicators.

France, Greece, Hungary, Portugal and the United Kingdom). For three additional countries the increase was 20% (Germany, Luxembourg and Sweden). In contrast, a sizeable decrease occurred only in the United States (13%), with more modest declines (of around 5% or less) in seven further countries.\*

\* Countries have endeavoured to supply data based on the new Average Wage concept. However, as when any new series is introduced, there are teething problems and different interpretations of guidelines need to be reconciled. It appears possible, for example, that the US data excludes some groups that are included in other countries' estimates of the average wage, which may partly explain the surprisingly low US average wage estimate. This issue is subject of ongoing work, and updates to the wage series will be posted on the OECD website as and when they become available.

Figure 0.1. **Percentage difference of average earnings AW levels with regard to previous APW levels, 2004**

Source: OECD (2006), p. 13.

StatLink  <http://dx.doi.org/10.1787/886456570455>Table 0.2. **Total life expectancy at age 65, 2040 projected mortality rates**

	Men	Women
Australia	84.0	87.4
Austria	83.7	87.3
Belgium	83.8	87.3
Canada	83.8	87.4
Czech Republic	82.5	86.0
Denmark	83.1	86.0
Finland	83.6	87.5
France	83.9	87.6
Germany	83.2	86.6
Greece	83.3	86.6
Hungary	80.8	85.0
Iceland	84.8	87.5
Ireland	82.8	86.2
Italy	83.0	87.0
Japan	85.8	88.7
Korea	81.8	85.6
Luxembourg	83.0	87.2
Mexico	80.9	84.8
Netherlands	83.5	86.7
New Zealand	83.6	86.8
Norway	84.2	87.5
Poland	81.5	85.6
Portugal	82.8	86.2
Slovak Republic	81.1	85.1
Spain	83.4	87.0
Sweden	84.3	87.5
Switzerland	84.5	88.2
Turkey	80.0	83.0
United Kingdom	83.3	86.4
United States	83.8	87.3
<b>OECD average</b>	<b>83.1</b>	<b>86.6</b>

Note: These projections build on recent national census data. The assumptions for future changes in mortality rates vary between countries but nonetheless use a consistent methodology. The resulting mortality rates can differ from national projections because of differences in assumptions.

Source: OECD calculations based on United Nations/World Bank population database.

## Demographics and life expectancy

Table 0.2 shows the country-specific total life expectancy, separately for men and women, conditional on surviving until age 65. Given that pension entitlements are projected into the future, the calculations use the projections for 2040 from the United Nations/World Bank population database. Workers who enter the labour market in 2004 will retire between 2044 and 2051. Unfortunately, mortality-rate projections are available only for 2040 and 2075.

Citizens of poorer OECD member states are projected to retain lower life expectancies than their counterparts in richer economies. In Hungary, Mexico, Poland, the Slovak Republic and Turkey, life expectancy at age 65 is 1½-3 years shorter than the OECD average. Japan and Switzerland have significantly longer life expectancy than the OECD mean today and are projected to remain at the top in 2040. Other countries are clustered around the OECD average.

## References

- Dang, T.T., P. Antolín and H. Oxley (2001), "Fiscal Implications of Ageing: Projections of Age-Related Spending", Working Paper No. 305, Economics Department, OECD, Paris.
- Disney, R.F. and E.R. Whitehouse (2001), "Cross-Country Comparisons of Pensioners' Incomes", Report Series No. 142, Department for Work and Pensions, London.
- European Union, Economic Policy Committee (2006), "The Impact of Ageing on Public Expenditure: Projections for the EU-25 Member States on Pensions, Health Care, Long-term Care, Education and Unemployment Transfers (2004-2050)", *European Economy*, Special Reports No. 1/2006.
- Förster, M. and M. Mira d'Ercole (2005), "Income Distribution and Poverty in OECD Countries in the Second Half of the 1990s", Social, Employment and Migration Working Paper No. 22, OECD, Paris.
- Fujisawa, R. and E.R. Whitehouse (forthcoming 2007), "The Role of the Tax System in Old-Age Support: Cross-country Evidence", Social, Employment and Migration Working Paper, OECD, Paris.
- OECD (2005), *Pensions at a Glance: Public Policies across OECD Countries*, Paris.
- OECD (2006), *Taxing Wages*, Paris.
- OECD (2007), *Benefits and Wages*, Paris.
- Queisser, M. and E.R. Whitehouse (2006), "Neutral or Fair? Actuarial Concepts and Pension-System Design", Social, Employment and Migration Working Paper No. 40, OECD, Paris.
- Whitehouse, E.R. (2000), "Administrative Charges for Funded Pensions: Measurement Concepts, International Comparison and Assessment", *Journal of Applied Social Science Studies*, Vol. 120, No. 3, pp. 311-361.
- Whitehouse, E.R. (2001), "Administrative Charges for Funded Pensions: Comparison and Assessment of 13 Countries", *Private Pension Systems: Administrative Costs and Reforms*, Private Pensions Series, Vol. 3, OECD, Paris.
- Whitehouse, E.R. (2006), *Pensions Panorama: Retirement-Income Systems in 53 Countries*, World Bank, Washington, DC.

## Table of Contents

<b>Editorial: Pension Reform – The Unfinished Agenda</b> .....	6
<b>Executive Summary</b> .....	8
<b>Structure of the Report and Methodology</b> .....	11

### Part I

#### Comparing Pension Policies of OECD Countries

<b>Overview of Retirement-Income Provision</b> .....	21
<b>Key Features of Pension-System Design</b> .....	24
<b>Retirement-Income Indicators</b> .....	31
Gross Pension Replacement Rates .....	32
Net Pension Replacement Rates .....	34
Gross Pension Replacement Rates with Entry at Age 25 .....	36
Gross Pension Replacement Rates with Different Investment Returns .....	38
Gross Pension Wealth .....	40
Net Pension Wealth .....	42
Progressivity of Pension Benefit Formulae .....	44
Pension-Earnings Link .....	46
Weighted Averages: Pension Levels and Pension Wealth .....	48
Structure of the Pension Package .....	50
References .....	52

### Part II

#### Pension Reforms and Private Pensions

<b>1. A Decade of Pension Reforms: The Impact on Future Benefits</b> .....	55
1.1. Overview of pension reforms in OECD countries .....	55
1.2. Impact of pension reforms in selected OECD countries .....	64
1.3. Conclusions .....	74
Notes .....	75
<b>2. The Role of Private Pensions in Providing Future Retirement Incomes</b> .....	76
2.1. Coverage of private pensions .....	76
2.2. Types of voluntary private pension provision .....	79
2.3. Mandatory replacement rates and the pension savings gap .....	80
2.4. Mandatory replacement rates and private-pension coverage .....	81
2.5. Filling the retirement-savings gap .....	82
2.6. Contribution density and the retirement-savings gap .....	85
2.7. Real rates of return on investments and the retirement-savings gap .....	86
2.8. Indicative gross replacement rates including voluntary pensions .....	86
2.9. Conclusions and future developments .....	88



Notes .....	89
Annex. Gross Replacement Rates Including Defined-Benefit Occupational Plans .....	90
References .....	92

## Part III

## Country Studies

<b>Introduction</b> .....	97
<b>Australia</b> .....	99
<b>Austria</b> .....	102
<b>Belgium</b> .....	105
<b>Canada</b> .....	108
<b>Czech Republic</b> .....	111
<b>Denmark</b> .....	114
<b>Finland</b> .....	118
<b>France</b> .....	122
<b>Germany</b> .....	127
<b>Greece</b> .....	130
<b>Hungary</b> .....	133
<b>Iceland</b> .....	137
<b>Ireland</b> .....	140
<b>Italy</b> .....	142
<b>Japan</b> .....	146
<b>Korea</b> .....	150
<b>Luxembourg</b> .....	153
<b>Mexico</b> .....	156
<b>Netherlands</b> .....	159
<b>New Zealand</b> .....	162
<b>Norway</b> .....	165
<b>Poland</b> .....	168
<b>Portugal</b> .....	172
<b>Slovak Republic</b> .....	177
<b>Spain</b> .....	181
<b>Sweden</b> .....	184
<b>Switzerland</b> .....	190
<b>Turkey</b> .....	194
<b>United Kingdom</b> .....	198
<b>United States</b> .....	202

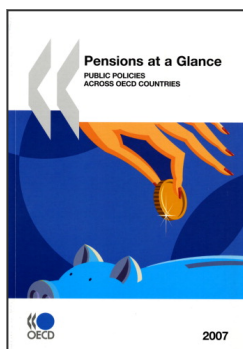
**This book has...**

**StatLinks** 

**A service that delivers Excel® files  
from the printed page!**

Look for the *StatLinks* at the bottom right-hand corner of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser, starting with the <http://dx.doi.org> prefix.

If you're reading the PDF e-book edition, and your PC is connected to the Internet, simply click on the link. You'll find *StatLinks* appearing in more OECD books.



**From:**  
**Pensions at a Glance 2007**  
Public Policies across OECD Countries

**Access the complete publication at:**  
[https://doi.org/10.1787/pension\\_glance-2007-en](https://doi.org/10.1787/pension_glance-2007-en)

**Please cite this chapter as:**

OECD (2007), "Sweden", in *Pensions at a Glance 2007: Public Policies across OECD Countries*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/pension\\_glance-2007-31-en](https://doi.org/10.1787/pension_glance-2007-31-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](mailto: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](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).