

ORANGE REPORT

ANNUAL REPORT OF THE SWEDISH PENSION SYSTEM

2011



PENSIONS
MYNDIGHETEN

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Troubled Stock Market and Debate on the Retirement Age

The year 2011 was marked by a euro crisis and a troubled stock market. In times of falling stock prices and worry on financial markets, we at the Swedish Pensions Agency are often asked by the media, “What will happen to pensions now?” We normally tell it as it is. In the short run virtually nothing will happen. Short-term fluctuations on world stock markets do not affect pensions very much. On the contrary, we could report that the inkomstpension would be raised in 2012.

For readers of the Orange Report, there is nothing strange about this. Pensions are affected most by the development of incomes and employment in Sweden. The contributions paid in for the inkomstpension are directly paid out as pensions to pensioners. In 2011 contributions paid in were sufficient to pay for 98 percent of the inkomstpension paid out – in that year there were increases in earnings as well as other pension-qualifying income.

The pension system’s buffer in the National Pension Funds is of course invested on different markets and in different assets. But in 2011 the buffer fund accounted for little over 11 percent of the total assets of the inkomstpension system. Nor is everything invested in shares, either. With the unrest on financial markets during 2011, the National Pension Funds decreased in value by 1.8 percent. Thus, when the stock market takes a downturn, we at the Swedish Pensions Agency rarely issue alarmist statements to the media about what will happen to pensions. On the other hand, if a falling stock market is an early warning of a long-term decline in the economy, where fewer will have jobs and pay pension contributions – then there is cause for concern about how this will affect our pensions. But these effects will not be noticed until later on. As most pensioners know, pensions were reduced in 2010 and 2011. This was related to the overall performance of the economy in the preceding 4–5 year period.

The retirement age has also become an issue of growing interest. The Government has commissioned a special study of the retirement age in Sweden, and the Prime Minister attracted attention talking about a possible retirement age of 75. At the Pensions Agency we, too, include an alternative retirement age in the orange envelopes (annual pension statements to the insured). The explanation can be found here in the Orange Report. The simple truth is that we are living longer. The average

person born in 1930 is expected to live past age 82. On average, someone born in 1995 will live to nearly 88. If members of the cohort born in 1995 will retire at age 65 just like their fellow citizens in birth cohort 1930, their pensions will have to last five years longer. That translates into a smaller pension per month and year – assuming the individual is unable or unwilling to postpone retirement.

At the same time, pensions are a totally individual matter. None of us knows how long we will live. Our needs differ, as do our interests, wishes and opportunities. Some are able and willing to work longer. Others want to keep working but lack the capacity to do so. Still others would like to retire early. Regardless of the situation, we all need a clear picture of the size of our total pension in order to plan how long we will be willing and able to work, whether to consume now or later and whether we need to save money. For almost all of us, this picture is provided at www.pensionsmyndigheten.se/prognos or www.minpension.se.

Katrin Westling Palm

Director General
Swedish Pensions Agency



National, Occupational and Private Pensions in Sweden

The Orange Report 2011 describes the financial position, the development during the year and the future for the portion of the legislated pension system that provides a pension based on contributions paid in, as well as factors like the return on those contributions – in other words, the inkomstpension and the premium pension.

Annual contributions and premiums paid for national, occupational and private pensions add up to SEK 380 billion for 2010 – total earnings in Sweden were SEK 1,342 billion (including earnings of the self-employed). This means that contributions equivalent to 28 percent of our earnings have been set aside in various pension systems.

The table and the diagrams show the distribution of premiums paid in, capital managed and pensions disbursed among the national pension, occupational pensions and private pensions as of 2010. For occupational pensions and private pensions, the data are not entirely complete; for example, pension trust funds are not included.

In some cases, amounts are set aside for occupational pensions in a company's balance sheet. Such amounts are not included in premiums paid in or capital managed; however, they are included in the amount of disbursements.

To simplify, the Orange Report 2011 covers approximately 60, 40 and 75 percent, respectively, of all pensions in Sweden.

Sweden's Pensions in 2010

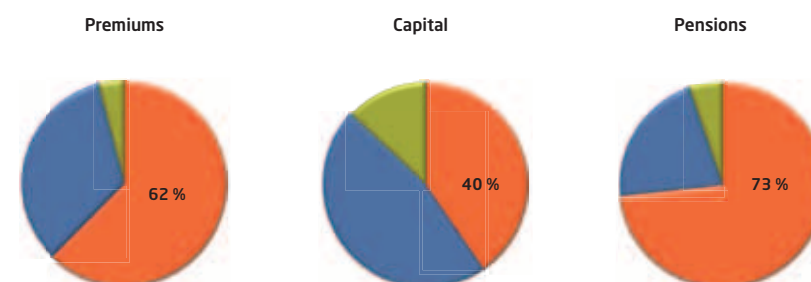
Billions of SEK

	Paid-in premiums	Capital managed Dec. 31	Disbursements
● National pension	237	1,309*	222** Orange Report
● Occupational pensions	128	1,509	65***
● Private pension insurance***	15	423	16***
Total	380	3,240	303

* Contribution asset not included. In addition, there are payments of guaranteed pensions (SEK 18 billion), widow's pensions (SEK 14 billion), housing supplement to pensioners and income support for the elderly (SEK 8 billion).

** Refers only to persons over 65 years of age.

***Including individual pension saving (IPS).



Did you know that ...

The surplus of the pension system

was SEK 157 billion as of 31 December, 2011. The balance ratio for 2013 is 1.0198 and increases the indexation of the income pension system at the end of 2012 by 1.98 percent.

We live longer each year ...

Compared to 2010 the average expected pension payout duration for a 65-year-old (economic life expectancy) is 24 days longer, increasing the pension liability by SEK 14 billion.

SEK 7,543,262,000,000

That's how much we owe today's and tomorrow's pensioners. This is equivalent to nearly 2.4 times the value of everything produced in Sweden during the year. The amount is also equivalent to more than 34 pension disbursements from the inkomstpension system, or roughly 4.1 times total tax-assessed household earned income in 2011.

Expenditure almost covered by the inflow of pension contributions

In 2011 the inflow of pension contributions to the inkomstpension system was SEK 216 billion. The expenditure of the inkomstpension system was SEK 220 billion and thus exceeded its contribution revenue. The deficit is funded by the First–Fourth National Pension Funds.

The income ceiling for pension rights was SEK 420,447, and

19 % of men have income above the income ceiling in the national pension system. For women 7 % have income above the ceiling.

Average individual's account: SEK 772,300

That is the balance of the average pension saver's pension account.

Premium pension funds: -10 percent

The average return for a premium pension saver with fund insurance was -10.3 percent in 2010.

National Pension Funds: -2.5 percent

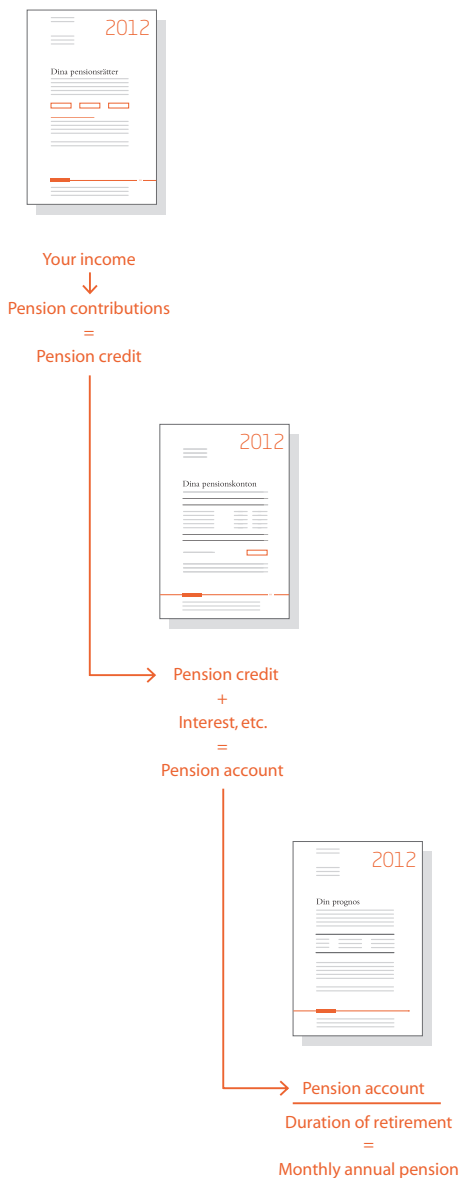
The national pension funds decreased by 2.5 percent in 2011, a reflection of the financial turmoil and of the contribution deficit.

Q: When should I retire?

A: That is up to you... Life expectancy in Sweden is increasing. Therefore, an individual born in 1970 will need to work until he/she reaches age 68 in order to receive a national pension of the same proportion to final earnings as it would have been at age 65 if life expectancy had remained unchanged.

Your own total pension saving

At www.minpension.se you can view your entire pension capital: that is, in addition to your national pension, your occupational pension and any private pension saving you may have. Minpension.se is made available in collaboration between the Swedish Pensions Agency and the pension management companies. You can also obtain the same information via www.pensionsmyndigheten.se/prognos and prepare your own pension projections.



How the National Pension System Works

The national public pension is based on straightforward principles. The outline shown in the margin should enable the reader to grasp its essential features. For anyone wishing to understand the system more thoroughly, it should suffice to read this section.

Almost Like Saving at the Bank ...

The national pension system works much like ordinary saving at the bank. The comparison applies to both earnings-related parts of the system, the inkomstpension and the premium pension. Each year pension contributions are paid by the insured, their employers and in certain cases the central government. Contributions are recorded as pension credit in the “bankbook” of the insured – i.e., the respective accounts for the inkomstpension and the premium pension. Savings accumulate over the years with the inflow of contributions and at the applicable rate of “interest”. The statement sent out each year in the “Orange Envelope” enables the insured to watch their own inkomstpension and premium pension accounts grow from year to year. When the insured individual retires, the stream of payments is reversed, and the inkomstpension and premium pension are disbursed for the remaining lifetime of the insured.

... but Entirely a Form of Pension Insurance

One feature of pension insurance is that savings are blocked; it is impossible to withdraw all or any part of them before the minimum age for receiving a pension. That age is 61 years for both the inkomstpension and the premium pension.

Pension insurance is intended to redistribute assets from individuals with shorter-than-average life spans to those who live longer. The pension balances of deceased persons – so-called inheritance gains (see Appendix A) – are redistributed each year to the surviving insured in the same birth cohort. Also after pension withdrawal begins, assets are redistributed from those with shorter-than-average life spans to those who live longer. This is done by basing monthly pensions on average life expectancy but paying them out as long

as the insured lives. Consequently, total pension disbursements to persons who live for a relatively short time after retirement are less than their pension savings, and those who live longer than average receive more than the value of their own pension savings.

The balance of an insured’s pension account consists of the sum of her/his pension credit (contributions), accrued interest and inheritance gains. A charge for administrative costs is deducted from the account each year.

One Krona of Pension Credit for Each Krona Contributed

The pension contribution is 18.5 percent of the pension base. The pension base consists of pension-qualifying income and pension-qualifying amounts. In addition to earnings, benefits from the social insurance and unemployment

Proportion* Granted a National Pension at Ages 61-70, Percent

Birth cohort	Age at first withdrawal									
	61	62	63	64	65	66	67	68	69	70
1938	3.7	2.3	2.3	2.1	77.6	4.2	3.2	0.8	0.3	0.3
1939	3.9	1.9	2.1	2.4	75.9	6.5	2.3	0.8	0.3	0.3
1940	3.0	2.1	2.5	3.1	76.0	5.0	2.6	0.8	0.4	0.5
1941	2.9	2.2	3.0	3.7	73.3	6.3	2.8	0.8	0.5	0.4
1942	3.4	2.9	3.4	3.9	70.9	6.2	3.4	1.2	0.5	
1943	4.0	3.1	3.6	5.3	66.5	7.1	4.4	1.2		
1944	4.7	3.4	4.8	6.0	63.4	7.9	4.0			
1945	5.2	4.2	5.3	6.1	62.1	7.2				
1946	6.1	4.8	5.5	6.8	60.1					
1947	6.4	4.7	6.0	7.5						
1948	6.0	5.0	6.7							
1949	5.9	5.4								
1950	5.9									

* The proportions are for new retirees in relation to the potential number of retirees as of December 2011. Ages are as of December 31 of the year when the pensioner began drawing an inkomstpension / guaranteed pension.

insurance systems are treated as income. Pension-qualifying amounts are a basis for calculating pension credit but are not income, properly speaking. Pension credit is granted for pension-qualifying amounts for sickness and activity compensation, years with small children (child-care years), studies and compulsory national service. The maximum pension base is 7.5 income-related base amounts (SEK 390,750 in 2011). Pension credit is earned at 16 percent of the pension base for the inkomstpension and 2.5 percent for the premium pension.¹

Who Pays the Contribution?

The insured pays an individual pension contribution to the national public pension of 7 percent of her/his earnings and any benefits received from the social insurance and/or unemployment insurance schemes. The contribution is paid on incomes up to 8.07 income-related base amounts² and is paid in together with the withholding tax on earnings. The individual pension contribution of 7 percent is not included in the pension base. Annual earnings are pension-qualifying when they exceed the minimum income for the obligation to file a tax return, which as from 2003 is 42.3 percent of the current price-related base amount.³ When an individual's income has exceeded this threshold, it is pension-qualifying from the first krona.

For each employee, employers pay a pension contribution of 10.21 percent of that individual's earnings.⁴ This contribution is also paid on earnings exceeding 8.07 income-related base amounts. Since there is no pension credit for earnings above 8.07 income-related base amounts, these contributions are in fact a tax. They are therefore allocated to the central-government budget as tax revenue rather than to the pension system.⁵

For recipients of pension-qualifying social insurance or unemployment insurance benefits, the central government pays a contribution of 10.21 percent of these benefits to the pension system. For persons credited with pension-qualifying amounts, the central government pays a contribution of 18.5 percent of the pension-qualifying amount to the pension system. These central government contributions to the old-age pension system are financed by general tax revenue.

The total pension contribution is thus 17.21 percent, whereas the pension credit and the pension contribution are 18.5 percent of the pension base. The reason for the difference is that the contribution base is reduced by the individual pension contribution of 7 percent when pension credit is calculated.⁶ This means that the maximum pension base is 93 percent of 8.07, or 7.5 income-related base amounts. The maximum pension credit in 2011 was SEK 72,289.

Where Does the Contribution Go?

Of the pension contribution of 18.5 percent, 16 percentage points are deposited in the four buffer funds of the inkomstpension system: the First, Second, Third and Fourth National Pension Funds.⁷ Each fund receives one fourth of contributions and finances one fourth of pension disbursements. The monthly pension disbursements of the inkomstpension system thus come from the buffer funds. In principle, the same moneys that were paid in during the month are paid out in pensions.

The moneys allocated to the premium pension, 2.5 percent of the pension base, are invested in interest-bearing assets until the final tax settlement. Only then can it be determined how much pension credit for the premium pension has been earned by each insured. When pension credit has been confirmed, shares are purchased in the funds chosen by the insured. For those who have

¹ Pension credit for the premium pension may be transferred between spouses. Pension capital transferred is currently reduced by 8 percent. The reasons are the assumption that more such transfers will be made to women than to men, and the fact that women on average live longer than men, with the result that pensions based on transferred credit are likely to be disbursed for a longer period.

² In 2011: $8.07 \times 52\,100 = \text{SEK } 420\,447$

³ In 2011: $0.423 \times 42\,800 = \text{SEK } 18\,104$. Under current rules, which provide for rounding upward to the nearest SEK 100, pension credit is earned on annual incomes of SEK 18,200 or more.

⁴ Self-employed persons pay an individual pension contribution of 7 percent and a self-employment contribution of 10.21 percent.

⁵ This tax amounted to SEK 14.0 billion in 2011; see Note 1. Table A.

⁶ $0.1721/0.93 \approx 0.185$

⁷ In addition there is the Sixth National Pension Fund, which is an asset in the inkomstpension system but provides no contributions and pays no pensions.

not chosen a fund, their moneys will be invested in the Seventh National Pension Fund, S afa, the government pension management alternative based on birth cohorts, which has a generation-fund profile. At the turn of the year 2011/2012, there were 797 funds in the premium pension system, administered by 99 different fund management companies. With each disbursement of pensions, enough fund shares are sold to provide the monthly amount.

Funds in the Premium Pension System in 2011 and Capital Managed 2007-2011

	Number of registered funds, 2011	Managed capital, December 31, Billions of SEK				
		2011	2010	2009	2008	2007
Equity funds	572	159	214	179	105	163
Mixed funds	71	41	17	12	10	10
Generation funds*	36	60	43	38	29	35
Interest funds	118	28	24	21	24	13
AP7S�afa/Premium Savings Fund ¹	–	105	110	90	63	87
Total	797	393	408	340	231	308

¹ The Premium Savings Fund was replaced by AP7 S afa from May 2010. AP7 S afa consists of one part AP7 Equity Fund and one part AP7 Interest Fund, which are registered as an equity fund and an interest fund, respectively, in the table above.

* Generation funds focus on saving in a particular age group, with a decreasing risk level as the group grows older.

Interest on Contributions That Gave Rise to Pension Credit

Savings in a bank account earn interest, and the national public pension works in the same way. The interest on the inkomstpension account is normally determined by the growth in average income. Average income is measured by the income index (see Appendix A). The equivalent of interest on the premium pension account is determined by the change in the value of the premium pension funds chosen by the insured.

Thus, the interest earned on pension credit depends on the development of different variables in the general economy. The inkomstpension account earns interest at the rate of increase in incomes – in the price of labour, to put it another way. The development of the premium pension account follows the tendency on financial markets, which among other things reflects the price of capital. Neither of these rates of interest is guaranteed; they may even be negative. Through apportionment of contributions to separate subsystems where the rate of return depends on somewhat differing circumstances, risks are spread to some extent. The average return of the inkomstpension system (income-/balance index) has been 2.7 percent since 2000. During the same period, the Premium Pension Index has increased by 0.2 percent per year.⁸

⁸ The premium pension index measures the amount deployed in the system at any given time has changed over a given period (so called time-weighted return).

A Rate of Interest Other Than the Income Index - Balancing

Under certain demographic and economic conditions, it is not possible to earn interest on the inkomstpension account and the inkomstpension at a rate equal to the growth in average income and at the same time to finance payments of the inkomstpension with a fixed contribution. In order to maintain the contribution rate at 16 percent, income indexation must be suspended in such a situation. This is done by activation of balancing.

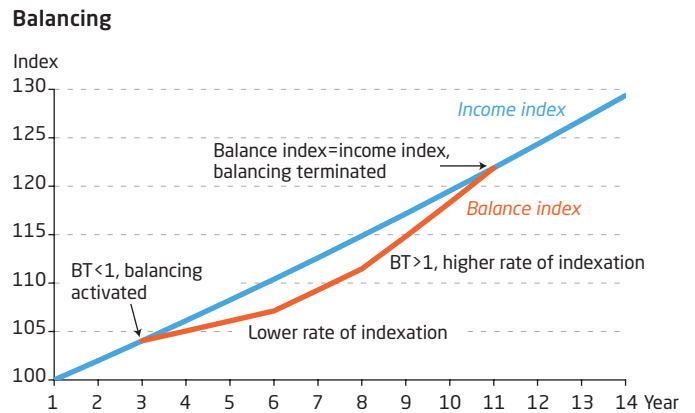
The assets of the system divided by the pension liability provides a measure of its financial position, a ratio referred to as the balance ratio. If the balance ratio is greater than the number one, assets exceed liabilities. If the balance ratio is less than one, liabilities exceed assets, and balancing is activated. When balancing is activated, pension balances and pensions are indexed by the change in a balance index instead of the change in the income index. The

change in the balance index is determined by the change in the income index and the size of the balance ratio.

An example: If the balance ratio falls below 1.0000 to 0.9900 while the income index rises from 100.00 to 104.00, the balance index is calculated as the product of the balance ratio (0.9900) and the income index (104.00), for a balance index of 102.96. The indexation of pension balances is then 2.96 instead of 4 percent.⁹ Indexation of pensions is reduced to the same extent.

If the balance ratio exceeds 1.0000 during a period when balancing is activated, pension balances and pensions will be indexed at a rate higher than the increase in the income index. When pensions regain the value that they would have had if they had been indexed only by the change in the income index – that is, when the balance index reaches the level of the income index – balancing is deactivated, and the system returns to indexation solely by the change in the income index.

⁹ The balance index for the next year is calculated by multiplying the balance index (102.96) by the ratio between the new and the old income index, multiplied in turn by the new balance ratio.



Pensions Reduced by Costs of Administration

The costs of administering the inkomstpension are deducted annually from pension balances through multiplication of these balances by an administrative cost factor (see Appendix A). This deduction is made only until the insured begins to withdraw a pension. At the current level of costs, the deduction for costs will reduce the inkomstpension by approximately 0.5 percent compared to what it would have been without the deduction.

Similarly, the costs of administration and fund management in the premium pension system are deducted each year from premium pension capital. In this case, however, the deduction continues to be made after the insured begins to draw a pension. The present cost level is 0.41 percent of premium pension capital per year. However, costs of administration are expected to decrease and to average 0.25 percent for the next 31 years. At this level of costs, the deduction for administrative costs will reduce the premium pension by an average of about 7.5 percent from what it would have been without any cost deduction.

How is the Inkomstpension Calculated?

The inkomstpension is calculated through dividing the pension balance by an annuity divisor (see Appendix A) at the time of retirement. Divisors are specific for each birth cohort and reflect the remaining life expectancy when a pension is first withdrawn as well as an interest rate of 1.6 percent. The remaining life expectancy is an average for men and women. Owing to the interest of 1.6 percent, the annuity divisor is less than life expectancy, and the initial pension is higher than it would have been otherwise.

An example: An individual who retires at age 65 has a remaining life expectancy of about 19 years. The interest of 1.6 percent reduces the annuity divisor to 16. If the individual has an inkomstpension account of 2.5 million, he/she will receive an inkomstpension of SEK 156,250 per year (2.5 / 16), or SEK 13,020 per month

The inkomstpension is recalculated annually by the change in the income index after deducting the interest of 1.6 percentage points credited in the annuity divisor,¹⁰ so-called adjustment indexation. This means that if the income index increases by exactly 1.6 percent more than inflation, as measured by the Consumer Price Index, pensions will increase at exactly the same rate as inflation. Thus, pensions are the same in constant prices only if incomes increase

¹⁰ The inkomstpension is recalculated as the ratio between the new and the old income index divided by 1.016. In years for which a balance ratio has been set, the income index is replaced by the balance index.

by exactly 1.6 percent more than inflation. If the income index increases by more than 1.6 percent above the inflation rate, pensions will rise in constant prices, and vice versa. If balancing is activated, the income index is replaced by the balance index when pensions are recalculated.

How Is the Premium Pension Calculated?

The premium pension can be drawn as either conventional insurance or fund insurance.

In both forms of insurance, the value of the pension account is divided by an annuity divisor, in the same way as with the inkomstpension. But for the premium pension, unlike the inkomstpension, the annuity divisor is based on forecasts of future life expectancy. Interest is currently credited at 2.2 percent in conventional insurance and 3.9 percent in fund insurance, after a deduction of 0.1 percent for costs.

If the premium pension is drawn in the form of conventional insurance, the pension is calculated as a guaranteed life-long annuity payable in nominal monthly instalments. The fund shares of the insured are sold, and the Swedish Pensions Agency assumes responsibility for the investment as well as the financial risk. The pension is calculated to provide an assumed nominal return that is presently -0.1 percent after the deduction for costs. The amounts disbursed may be greater because of so-called rebates if the conventional life-insurance operation reports a positive result (see Appendix A).

Fund insurance means that the pension savings remain in the premium pension funds chosen by the insured. The amount of the premium pension is recalculated once each year based on the value of fund shares in December. In each month of the following year, a sufficient number of fund shares are sold to finance payment of the calculated premium pension. If the value of the fund shares increases, fewer shares are sold; if it decreases, more shares are sold. Variations in prices of fund shares affect the value of the following year's premium pension.

The premium pension may include a survivor benefit for the period of disbursement. This means that the premium pension will be paid to either of two spouses or cohabitants as long as one of them survives. If the insured elects to include a survivor benefit, the monthly pension will be lower, as the expected payout duration of the premium pension will then be longer.

¹¹ These provisions concern the guaranteed pension for persons born in 1938 or later. For older individuals, other rules apply.

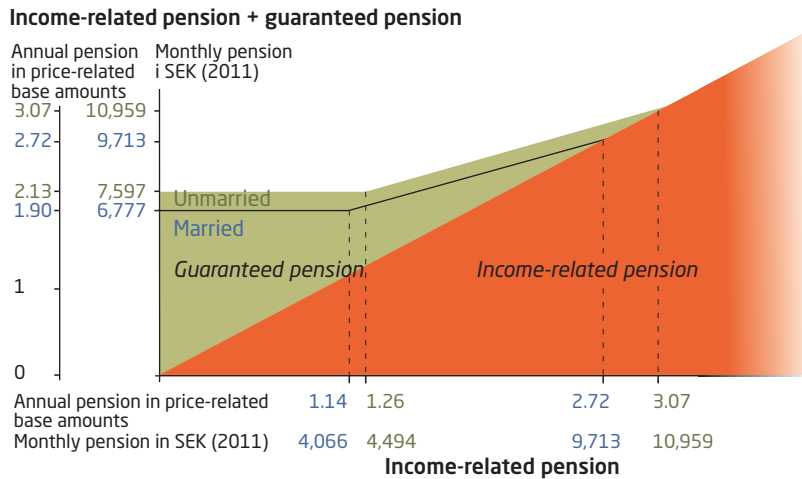
¹² In 2011 the price-related base amount was SEK 42,800.

Guaranteed Pension¹¹

The guaranteed pension provides basic social security for individuals with little or no income. Residents of Sweden are eligible for a guaranteed pension beginning at age 65. To receive a full guaranteed pension, an individual must in principle have resided in Sweden for 40 years after age 25. Residence in another EU/EEA country is also credited toward a guaranteed pension.

In 2011 the maximum guaranteed pension for a single pensioner was SEK 7,597 per month (2.13 price-related base amounts¹²) and for a married pensioner, SEK 6,777 per month (1.90 price-related base amounts). The guaranteed pension is reduced for persons with an earnings-related pension. The reduction is taken in two steps: for low incomes, the guaranteed pension is decreased by the full amount of the earnings-related pension; for higher incomes, the guaranteed pension is decreased by only 48 percent. This means that a single pensioner with a monthly earnings-related pension of SEK 10,959 or more received no guaranteed pension in 2011. For a married pensioner the corresponding income limit was SEK 9,713.

An example: A pensioner living alone has an earnings-related pension equivalent to 2.26 price-related base amounts. The guaranteed pension is



reduced by the full amount of income up to 1.26 price-related base amounts. The remainder of $(2.13 - 1.26 =) 0.87$ price-related base amount is reduced by 48 percent of the income above 1.26 price-related base amounts, or by 0.48 price-related base amount, for a guaranteed pension of 0.39 price-related base amount. The total annual pension will then be 2.65 price-related base amounts.

When the guaranteed pension is calculated, the premium pension is disregarded. Instead, the inkomstpension is calculated as if it had been earned at 18.5 percent of the pension base, rather than 16 percent. One reason for these provisions is that they are considered to simplify administration of the guaranteed pension. When the premium pension has become more substantial, the rules may be revised.

The guaranteed pension is financed directly by the tax revenue of the central-government budget and is therefore not included in the income statement and balance sheet of the pension system.

ATP

Persons born before 1938 have not earned either an inkomstpension or a premium pension. Instead they receive the ATP, which is calculated by pre-existing rules. The level of the ATP pension is based on an individual's income for the 15 years of highest income, and 30 years with income are required for a full pension.

For persons born in 1938–1953, there are special transitional provisions. These individuals receive a portion of their earnings-related old-age pension as an ATP and the rest as an inkomstpension and a premium pension. The younger the individual, the smaller the proportion of the ATP. Persons born in 1938 receive 80 percent of their ATP; those born in 1939 receive 75 percent of their ATP, etc. There is an additional guarantee that the pension received will not be less than the ATP earned by the individual through 1994 – the year of the decision in principle to adopt the pension reform. Those born in 1954 or thereafter earn their entire pensions under the provisions for the inkomstpension and the premium pension.

For pension withdrawals before the year when the individual turns 65, the ATP is price-indexed. If the balancing is activated the year when the individual reaches age 65, the ATP is recalculated according to a special rule. The month the person reaches age 65, the ATP is recalculated by multiplication by all the balance ratios that have been set during that balance period. From the following year, the ATP is adjustment-indexed in the same manner as the inkomstpension.

Costs of Administration and Capital Management

The income statements of the inkomstpension and the premium pension show the costs reported by the Swedish Pensions Agency and the National Pension Funds in their own income statements as "costs reported gross." The capital management costs of the National Pension Funds and the premium pension system that are reported "net,"¹³ that is, against revenue or as a lower return on funds, are not shown directly in the income statement of the pension system.

¹³ The concept of costs reported net is used here for the costs which consist of fixed management fees in the accounts of the National Pension Funds and which in the accounts of the premium pension system represent the net of the items referred to as administrative costs and rebates on administrative costs.

In this section, costs reported gross and costs reported net are compiled, as are transaction costs that can only be captured partly in the accounts of the National Pension Funds and the Swedish Pensions Agency. The purpose is to provide as full a picture as possible of the total costs of the old-age pension system. It is important to keep in mind that the costs reported net in this section, as well as transaction costs, have already had a negative impact on the National Pension Funds.

As far as the insured individual is concerned, the effects of costs reported net differ for the premium pension and for the inkomstpension. In the premium pension system these costs decrease either the return or the premium pension account through a deduction for costs. Thus costs reduce assets and thereby the future premium pension of the insured. The costs reported net by the National Pension Funds are not included in the costs deducted from the pension account. The costs reported net by the National Pension Funds affect only the assets of those Funds. Since only system assets, not liabilities, are reduced by these costs, their impact on the result of the system is negative. This means that costs reported net have a negative effect on the balance ratio. But this effect is small, as costs reported net are quite limited in relation to the pension liability. When balancing is activated, the costs reported net affect the indexation of the inkomstpension and of pension capital.

Accounting for Total Costs

The total cost of insurance administration and capital management to the pension system, in addition to other charges, amounted to more than SEK 4.6 billion, of which SEK 2.0 billion is reported in the income statement of the pension system. The SEK 2.0 billion is the sum of the costs of insurance administration (1,193 million) and the operating expenses of the National Pension Funds (791 million). See the table Total Costs and Charges of the Old-Age Pension System.

For the inkomstpension, the costs reported in the income statement for 2011 were SEK 1,644 million, of which SEK 853 million are for insurance administration and SEK 791 million are for operating expenses of the National Pension Funds. This amount (SEK 1,644 million) is charged in principle to the inkomstpension accounts of the insured in the Orange Envelope, though with certain differences related to periodization. In addition to the SEK 791 million in operating expenses, the National Pension Funds had fixed management fees of SEK 437 million. The sum of reported capital management costs shown in the income statements of the National Pension Funds was thus SEK 1,228 million. Performance-based fees and transaction costs, such as brokerage, are not reported as direct costs of the National Pension Funds, but instead negatively affect the rate of return. Performance-based fees are not an ordinary cost of administration but a way for the National Pension Funds to share risk and return with their outside managers. In total the Na-

tional Pension Funds paid SEK 241 million in performance-based fees and SEK 179 million in brokerage and other transaction costs. When these costs and charges are included, the total costs of the inkomstpension are SEK 2,501 million.

The Swedish Pensions Agency's income statement of the premium pension system shows administrative costs of SEK 255 million. That sum does not include SEK 8 million for management of conventional insurance, reported net, through reduction of the return on funded capital (see Note 17). The total costs of insurance administration for the premium pension are thus SEK 340 million; see the item of Total, insurance administration, in the table below. For the premium pension, the item of Fixed management fees refers to fees charged by the premium pension funds after rebates have been returned to premium pension savers. As the fee was SEK 1,155 million, and rebates were SEK 2,128 million, the fee before rebates was SEK 3,283 million. In addition to the SEK 1,155 million in fixed management fees, the sum of capital-management expenses and charges consist of SEK 645 million in transaction costs. As with the corresponding item for the inkomstpension, this amount does not represent complete reporting of all transaction costs. The total capital management costs of the premium pension have reduced the return (see Note 16).

Reported Costs and Charges of the Old Age Pension System, Millions of SEK

	Inkomst- pension	Premium pension	Total
Collection of contributions, etc. (National Tax Board)	377	59	436
Pension administration	476 *	281	757
Total, insurance administration	853	340	1,193
Operating expenses of the National Pension Funds (reported gross)	791		791
Fixed management fees (reported net)	437	1,155	1,592
Total reported capital management costs	1,228	1,155	2,383
Performance-based fees**	241		241
Transaction costs***	179	645 ****	824
Total capital management costs and charges	1,648	1,800	3,448
Total costs	2,501	2,140	4,641

* It has been decided that the Swedish Pensions Agency is to receive this amount from the National Pension Funds as compensation for costs of administration; the amount does not represent the agency's reported actual cost for the inkomstpension (see the table below captioned Cost of the Swedish Pensions Agency / Swedish Social Insurance Agency for the Inkomstpension).

** This item represents fees that the National Pension Funds pay only if a particular manager achieves a certain agreed result.

*** Transaction costs refer to brokerage and clearing fees charged on the stock and derivatives market. These charges are included directly in the transaction and have a negative effect on the return earned by the funds. Interest and foreign-currency transactions are paid for through the difference between buying and selling prices and thus cannot be reported as a separate charge.

**** The costs included here are only those of the funds that report the so-called total cost share (TCS) to the Swedish Pensions Agency. These funds account for roughly 95 percent of the capital in the premium pension system. The amount also includes costs of interest and coupon (dividend) taxes in the funds.

Costs of the Inkomstpension to the Swedish Pensions Agency

The income statement of the pension system includes the compensation that National Pension Funds are required to provide to the Swedish Pensions Agency for its administrative costs. The accounting of the inkomstpension is on a cash basis rather than an accrual basis. The difference between the compensation received from the National Pension Funds and the cost repor-

ted by the Swedish Pensions Agency for the inkomstpension is offset by the compensation received by the agency two calendar years after the difference arises. The table below shows both the compensation decided, i.e. the cost included in the annual report of the pension system, and the accrued cost, or “cost outcome,” used in the time series below.

Costs of the inkomstpension to the Swedish Pensions Agency/Swedish Social Insurance Agency, Millions of SEK

	2007	2008	2009	2010	2011
Opening balance	312	302	66	91	150
Compensation decided*	514	257	544	627	476
Cost outcome**	524	493	519	568	506
Net income/-loss	-10	-236	25	59	-30
For the year Closing balance	302	66	91	150	120

* Compensation from the National Pension Funds, the cost reported in the income statement of the inkomstpension.

** The cost included in the table Costs of the Old-Age Pension System and in the diagram Costs in SEK per insured.

Development of Costs 2007-2011

To provide a perspective on costs, the tables and the diagram below show cost items for each year beginning with 2007. Costs are reported in millions of SEK and in SEK per number of insured, that is, the number of persons with a pension account, including pensioners.

Costs of the Old-Age Pension System 2007-2011, Millions of SEK

IP = inkomstpension, PP = premium pension

		2007	2008	2009	2010	2011
Collection of contributions, etc. (National Tax Board)	IP	287	353	378	402	377
	PP	45	55	59	63	59
Pension administration	IP*	524	493	519	568	506
	PP	273	382	284	283	281
Total insurance administration	IP	811	846	897	970	883
	PP	318	437	343	346	340
Operating expenses of the National Pension Funds (reported gross)	IP	752	778	808	820	791
	PP	-	-	-	-	-
Fixed management fees (reported net)	IP	546	498	489	477	437
	PP	924	758	829	1,141	1,155
Total reported capital management costs	IP	1,298	1,276	1,297	1,297	1,228
	PP	924	758	829	1,141	1,155
Performance-based fees	IP	257	294	170	368	241
	PP	-	-	-	-	-
Transaction costs**	IP	435	407	208	186	179
	PP	713	592	565	663	645
Total capital management costs and charges	IP	1,990	1,977	1,675	1,851	1,648
	PP	1,637	1,350	1,394	1,804	1,800
Total costs	IP	2,801	2,823	2,572	2,821	2,531
	PP	1,955	1,787	1,737	2,150	2,140

* The amount for the inkomstpension refers to actual cost, whereas the amount in the table Total Costs and Charges of the Old-Age Pension System refers to the compensation paid by the National Pension Funds for costs of administration.

** See the explanation in the table Total Costs and Charges of the Old-Age Pension System.

The table shows that the costs of the inkomstpension have decreased in the past year. The decrease has been primarily in performance-based fees and costs of administration. The capital management costs and fees of the premium pension are relatively unchanged from 2010 to 2011. The development of

capital management costs and fees for the premium pension is dependent primarily on the development of average capital managed.

Pension Liability/Capital from which Cost Deduction was taken, 2007-2011, Billions of SEK

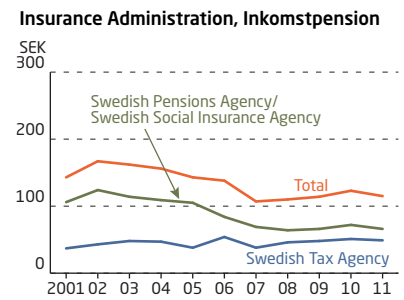
		2007	2008	2009	2010	2011
Pension liability from which cost deduction was taken	IP*	4,910	5,157	5,002	4,795	4,965
	PP	310	233	343	413	401

* The inkomstpension liability to the economically active, that is excluding the supplementary pension and inkomstpension under disbursement. There is no reduction of pensions for costs.

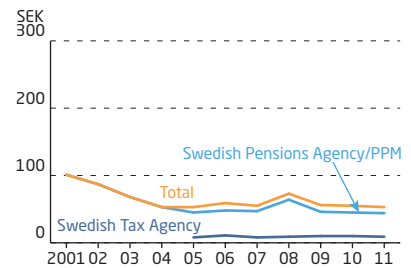
Capital Management Costs in Relation to Capital Managed

Yet another way to view the costs of capital management is to compare them with the capital under management. The capital management costs of the inkomstpension are the costs of the First–Fourth and Sixth National Pension Funds. The capital management costs of the premium pension refer to the fees that the premium pension funds, including the Seventh National Pension Fund, have deducted after rebates, as well as the capital management costs of the premium pension system for conventional life insurance. The economies of scale for the four major National Pension Funds in the inkomstpension system are clearly apparent from the table below. In 2011 the total capital management costs for these funds and for the much smaller Sixth National Pension Fund was 0.14 percent of the capital managed. The performance-based fees of the National Pension Funds were 0.03 percent, and transaction costs were 0.02 percent. Consequently, total capital management costs and charges amounted to 0.19 percent of the capital managed. The capital management costs reported for the much smaller and more numerous funds in the premium pension system were 0.30 percent, transaction costs were 0.19 percent; the total of capital management costs and charges was thus 0.47 percent of the capital managed. However, the differences in costs are due not only to disparity in economies of scale, but also to the type of investment. Thus, the funds in the inkomstpension system invest some 41 percent of their capital in bonds or similar securities, with relatively low management costs compared to stocks, whereas in the premium pension system, only about 8 percent of assets are invested in such assets.

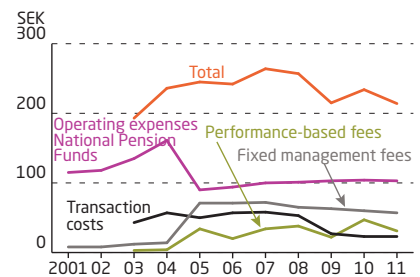
Cost per insured, 2001-2011, SEK



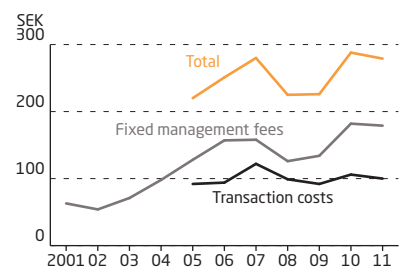
Insurance Administration, Premium Pension



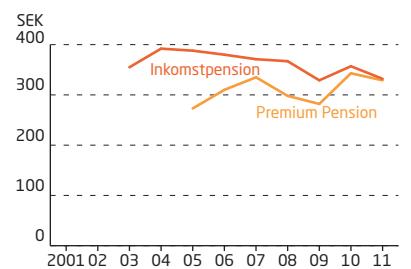
Capital Management Costs and Charges, Inkomstpension



Capital Management Costs and Charges, Premium Pension



Total Costs



Capital Management Costs in Relation to Capital Managed, 2007-2011, Percent

		2007	2008	2009	2010	2011
Operating expenses of the National Pension Funds	IP	0.09	0.10	0.11	0.10	0.09
	PP	-	-	-	-	-
(reported gross)						
Fixed management fees (reported net)	IP	0.06	0.06	0.06	0.06	0.05
	PP	0.33	0.30	0.31	0.32	0.30
Total reported capital management costs	IP	0.15	0.16	0.17	0.16	0.14
	PP	0.33	0.30	0.31	0.32	0.30
Performance-based fees	IP	0.03	0.04	0.02	0.04	0.03
Transaction costs	PP	-	-	-	-	-
	IP	0.05	0.05	0.03	0.02	0.02
	PP	0.25	0.23	0.21	0.19	0.17
Total capital management costs and charges	IP	0.23	0.25	0.22	0.21	0.19
	PP	0.58	0.53	0.52	0.51	0.47
Average capital managed* (Billions of SEK)	IP	878	803	767	861	884
	PP	284	254	270	353	385

* Calculated as capital at the beginning of the year + capital at year-end divided by two. Millions of SEK.

Actual Cost Deductions Taken, 2007-2011

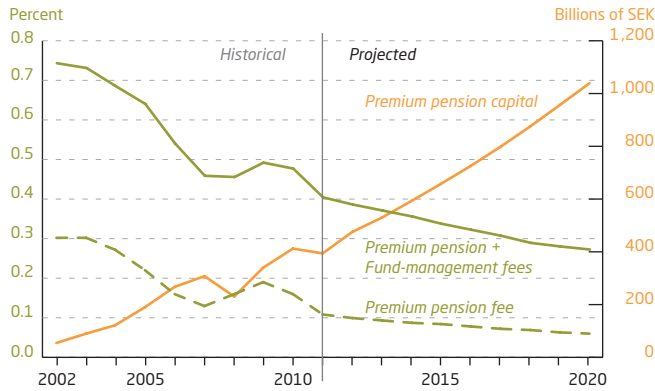
In 2011 the deduction from pension balances for costs was 0.0340 percent in the inkomstpension system. The deduction for costs is made only until pension disbursement begins. Neither the fixed management fees of 0.05 percent of capital managed, the performance-based fees of 0.03 percent of capital managed, nor the transaction costs of 0.02 percent of capital managed are charged to pension savers through a deduction for costs. In the pension projections in the Orange Envelope, the deduction for costs is assumed to remain constant at 0.045 percent.

In 2011 the deduction for the costs of administration of the premium pension was 0.11 percent, calculated on the basis of the average capital managed in the premium pension system as of January 31, February 28 and March 31, 2011. Here the cost deduction continues even after pension disbursement begins. The average cost deduction by fund managers after rebates was 0.30 percent in 2011. In addition, there were transaction costs of approximately 0.17 percent in the form of brokerage etc. The annual percentage cost deduction will diminish in the years ahead. As the funded capital grows, the cost is expected to drop from 0.11 percent to around 0.03 percent, and rebates to pension savers are anticipated to increase.

Deductions for Costs, 2007-2011, Percent

	2007	2008	2009	2010	2011
IP	0.0440	0.0226	0.0189	0.0343	0.0340
PP, PPM	0.13	0.16	0.19	0.16	0.11
PP, funds	0.33	0.30	0.31	0.32	0.30
PP, total	0.46	0.46	0.50	0.48	0.41

Costs of the Premium Pension



One would expect the cost deducted from inkomstpension accounts to correspond to the cost reported in the income statement of the inkomstpension. That amount, divided by the pension liability – the inkomstpension account balances of the insured – for which disbursement has not yet begun would be the cost deduction expressed as a percentage. However, this is not so. One reason is related to the phase-in of the system; until the year 2021, the cost deduction will be increased stepwise (see Note 11). Another reason is that the costs deducted from the accounts are budgeted costs; the (minor) discrepancies thus arising between costs deducted and actual costs are followed up and corrected in the cost deduction of the next year.

In the premium pension system, similar small discrepancies arise between the amount charged and the actual cost. These discrepancies are also corrected on an ongoing basis.

What Difference Do Costs Make in the Size of a Pension?

Costs are an important factor in determining the size of a future pension. A seemingly low annual fee can reduce pensions considerably since it is paid over a long period. Among factors affecting pension capital, the magnitude of costs is the one over which the responsible authorities have the most control; moreover, the insured are in a position to influence the costs of their premium pensions.

The following simplified calculation provides a fairly accurate portrayal of how a certain cost percentage affects the size of the pension disbursed. The average time for which a paid-in contribution remains in the system before being disbursed is roughly 21 years, and the average time for which one krona remains in the system during pension disbursement is about 10 years. If the cost of the inkomstpension is 0.04 percent, the charge for administrative costs will reduce the inkomstpension to $(1-0.0004)^{21} \approx 99$ percent of what it would have been without the charge, or by roughly 1 percent. If the costs of the premium pension decrease, for example, to 0.3 percent, the charge for costs will still reduce the premium pension appreciably to $(1-0.003)^{31} \approx 91$ percent of what it would have been without the charge, or by 9 percent. The reason why the charge for costs is deducted for 31 years is that in the premium pension system the deduction continues during the period of pension disbursement. A fairly normal management fee in Sweden for saving outside the national pension system is around 1 percent – not infrequently, it is even higher. If the charge for costs for the same period as in the example above is 1 percent, pension capital savings will be 73 percent of what they would have been with a fee of 0 percent; in other words, 27 percent is lost in charges for costs.

Changes in the Value of the Pension System

Sweden's national pension is based primarily on earnings. In each of their economically active years, gainfully employed individuals contribute a certain portion of their income toward a pension. The bulk of their contribution goes to the inkomstpension system, a lesser share to the premium pension system. Pension credit is accumulated over a long period, 40–45 years, sometimes even more. The size of future pensions will thus depend heavily on the change in the value of contributions paid into the system. For example, someone who deposits a constant amount each year for 40 years, at an annual interest rate of 2 percent, will end up with a final balance that is 54 percent higher than that of a saver with no annual return.

In the inkomstpension system the change in value is normally determined by the percentage increase in the income index. This index follows the average rate of growth in the earnings of the economically active. In the premium pension system, on the other hand, the change in value is determined by the return on the funds of pension savers. Another difference is that the change in the value of the inkomstpension is the same for everyone, whereas the return of the premium pension may vary considerably from one individual to another, depending on the type of funds chosen.

Changes In Value During 2011

In the inkomstpension system, pension balances are normally revalued by the change in the income index. Unlike the premium pension system, the change in value takes place only at the outset of each year. Since balancing took effect in 2010, it is more relevant to measure the change in value by the balance index, which is used as the index as long as balancing remains activated. The balance index decreased at the outset of 2010 by 1.4 percent and at the outset of 2011 by 2.7 percent. At the outset of 2012, by contrast, the balance index was raised by 5.2 percent. Thus, the inkomstpension credit earned by the gainfully employed was changed by these percentages at the beginning of each year.

For pensioners the inkomstpension and the ATP were lowered by an additional 1.6 percent in both years as an effect of so called adjustment indexation. This means that the change due to indexation is reduced each year by the interest of 1.6 percent that has already been credited to the inkomstpension in the annuity divisor (see the section “How the National Pension System Works”).

The inkomstpension is affected – indirectly – by developments on capital markets, as the National Pension Funds, which serve as buffer funds in the inkomstpension system, invest a large portion of their capital in stocks. The decrease in the market value of investments in the record drop of 2008 was one of the main reasons why balancing was activated in 2010.

The premium pension system is strongly impacted by the development of capital markets. The Swedish stock market showed a particularly lacklustre tendency during 2011 – although there was some improvement toward year-end. The rate of return for pension savers, measured as the capital-weighted (internal) rate of return, was negative for the year, minus 10.3 percent. It should be noted, however, that pensions from the premium pension system are limited so far, as the system is still in an early build-up phase.

Annual Indexation of Inkomstpension Accounts and Return on Premium Pensions, 2000–2011, Percent

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Income-/balance index	1.4	2.9	5.3	3.4	2.4	2.7	3.2	4.5	6.2	-1.4	-2.7	5.2
Return, premium pensions*	0.7	-8.6	-31.1	17.7	7.9	30.5	12.2	5.3	-34.3	34.9	12.3	-10.3

* Capital-weighted return (internal rate of return), excluding return on pension credit under temporary management.

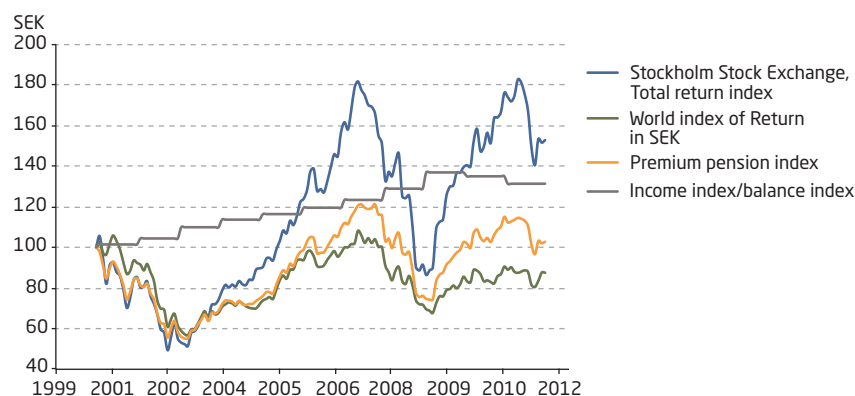
Inkomstpension and Premium Pension – Comparison of Changes in Value

One reason for establishing the premium pension as complement to the pay-as-you-go system was that variations over the years in the growth of earnings and return on capital could tend to offset each other.

Developments in recent years provide examples of cases where this distribution of risk has functioned as intended. In 2008 the relatively substantial increase in the income index compensated for the negative return on capital and resulted in a relatively good overall return for the pension system. In 2009 and 2010 the return on capital was positive and thus helped to offset the negative effect of subsequent balancing for 2010 and 2011. In 2011 the balance index increased, with the result that inkomstpensions were revalued upward whereas the return of the premium pension system was negative. For a more detailed description of the income and balancing indices, see the chapter "How the National Pension Works" and the section "An Indexation Rate Different from the Income Index – Balancing".

The spreading of risk can become more important in the future as premium pension funds account for a growing share of total pension capital. In some cases, however, this will not prevent declines in asset values that coincide with decreases in the income/balance index.

Value of SEK 100 Paid into the Inkomstpension System in December 2000 (Income Index) and into the Premium Pension System (Premium Pension Index), and Invested in an Average Portfolio of Stocks on the Stockholm Stock Exchange and on the Global Equity Market, Respectively



Return index for the Stockholm Stock Exchange according to Affärsvärlden, World Index of Return on Stocks according to Morgan Stanley Capital International Inc., converted into SEK.

In December, 2000, premium pension savers could begin investing their capital in the funds of the system. For a few years before then, the capital had been under temporary management, which had invested it in an interest-bearing account at the Swedish National Debt Office (Riksgälden).

The return index for the Stockholm Stock Exchange rose much more than the premium pension index in 2003–2007, and it then dropped more precipitously in 2008. The recovery in 2009–2010, like the decline in 2011, was also much more pronounced on the Stockholm Stock Exchange than in the

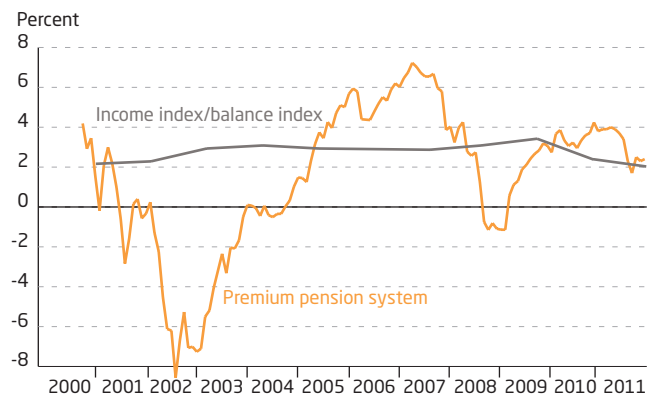
premium pension index. The principal explanation for the different paths of development is that premium pension savers had invested primarily in foreign stocks. Moreover, some investments were in interest-bearing funds that provided a steadier return.

Those who have refrained from selecting funds, and thus had their moneys invested in the AP7 Såfa, the Central Government Fund Management Alternative (Statens årskullsförvaltningsalternativ), have obtained from the start almost exactly the same return as the average investor making an “active” choice.

Change In Value Measured by the Capital Weighted Rate of Return (Internal Rate of Return)

The type of measure of the change in value, or return, shown above is sometimes called the “time-weighted” return, and it does not take into account the change in the amount of capital during the period of saving. What is shown for the premium pension system is how the value of one krona paid in has changed on average over a certain period. For individual savers in the premium pension system, it is important to show the return by another measure, namely the capital-weighted rate of return (internal rate of return). The reason is that since the beginning, the capital in pension savers’ accounts has increased considerably as the system has been built up. At the end of 2007, there was six times as much capital in the funds as at the end of 2000. Thus, the amount on which the extremely high return was obtained in 2005 was much larger than the amount adversely affected by the equally negative return of 2002. The capital-weighted rate of return, takes this difference into account by assigning greater weight to 2005 than to 2002. In the calculations of internal rate of return by the Swedish Pensions Agency, consideration is also given to other factors, such as management fees, rebates and inheritance gains.

Average Capital-Weighted Rate of Return for All Premium Pension Savers up to Different Points in Time during the Years 2000-2011



Each point on the curve shows the average annual internal rate of return (after 1995) until the time concerned

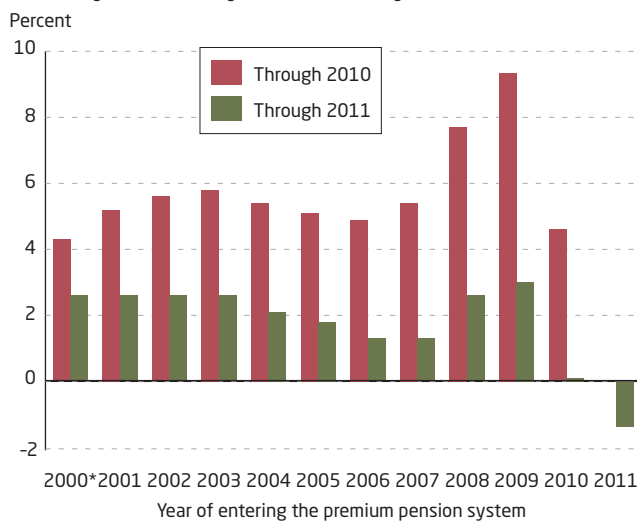
The diagram above shows the development of the average annual capital-weighted rate of return up until different points in time, as well as the corresponding rate of return if the premium pension had instead developed like the income/balance index. With this return, the capital-weighted rate of return through the end of 2011 would have been 2.0 percent per year. This may be compared with the capital-weighted rate of return for the premium pension, 2.4 percent through 2011.

From the diagram it is apparent that the corresponding calculation through 2008 was minus 0.8 percent for the premium pension system and plus 3.5 percent with the income/balance index. Note that the curve does

not show the actual capital-weighted rate of return of inkomstpension savers, since the capital structure of the inkomstpension system is considerably different. It may also be interesting to note that in the pension forecasts to the insured by the Swedish Pensions Agency, the premium pension is assumed to provide a return that is 3.5 percentage points higher than the growth in incomes. This margin has not been achieved during the quite brief period observable thus far.

The bar graph below shows the average capital-weighted rate of return for pension savers by year of entry into the system. All groups, except for the one that entered the system in 2011, a year of stock market decline, have shown a positive tendency on average in the development of their premium pension saving. On the whole, however, levels have fallen, with some decrease in the differences between groups since the preceding year.

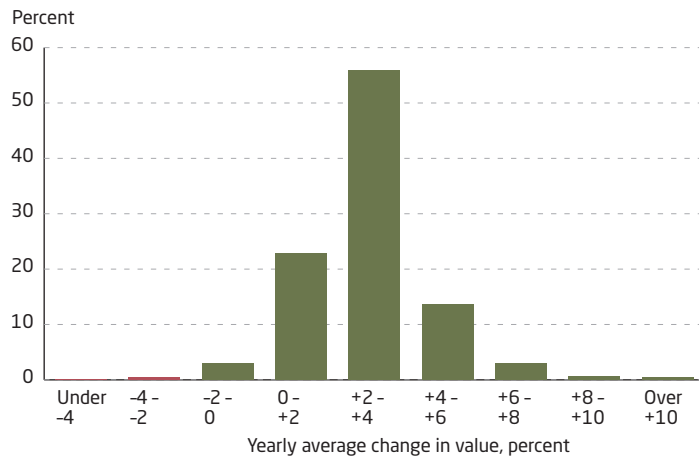
Average Internal Rate of Return per Year for Premium Pension Savers by Year of Entry into the Fund System



* Year of Entry 1995-2000. These pension savers constitute 67 percent of the total number.

It may also be interesting to review the distribution of the capital-weighted rate of return among pension savers who have been in the system for an equally long time. Among pension savers who had been in the premium pension system from the start in 1995, approximately 96 percent showed a positive change in value at the end of 2011. It may be noted that three years earlier, at the end of 2008, only 35 percent reported a positive development of value. The cumulative change in value for the premium pension system may vary considerably even over a short period.

Pension Savers Who Began Paying into the Premium Pension System in 1995, by Levels of Internal Rate of Return through 2011

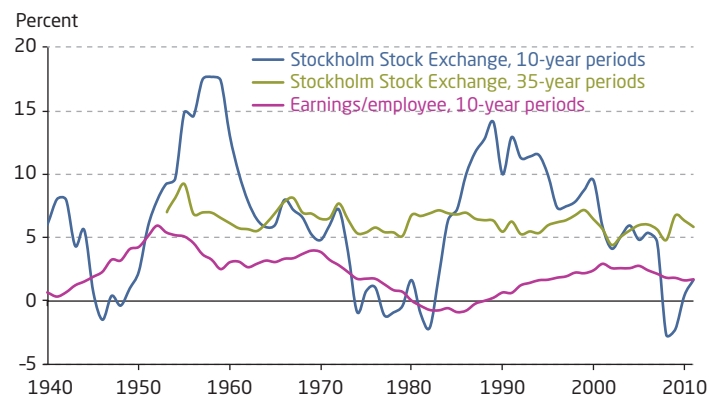


Since the data refer to participants since 1995, the reason for the considerable spread is to no extent that they entered the system at different times (compare the previous figure showing the distribution by year of entry). Rather, it is primarily the choice of fund investments with substantial differences in return.

Importance of a Long-Term View

The aspects of the pension system that relate to its change in value cannot be evaluated on the basis of the changes in value over only a few years. The importance of a long-term view is easily underestimated, both when stock prices are rising and when they are falling. For the 93-year period 1918–2011, the average real rate of return on the Stockholm Stock Exchange was 6.6 percent per year. Overall, the real rate of return on equities was 5.9 percent per year. However, this does not provide assurance of such a return in 10 or even in 20 to 30 years. For different 10-year periods since 1930, the real rate of return has varied considerably, on the Stockholm Stock Exchange, from 23 percent per year (1980–89) down to negative figures in certain other periods. There have often been major changes between adjacent 10-year averages, both on the Stockholm Stock Exchange and world-wide.

Real World-Wide Rate of Return and the Development of Swedish Real Earnings per Employee in Percent



For each year the curves show the average real total return per year (incl. dividends) over the preceding 10 and 35 years, respectively, and the percentage change per year in real earnings per employee over the preceding 10 years.

One conclusion is that the "long run" is not 5–7 years, or even 10 years, as is sometimes said, but that people should think in terms of a much more extended period for the return on stocks. Where pensions are concerned, a

reasonable time horizon for younger people would be 30–40 years. Historically, the real development of value over 35-year periods has also been more stable, as is shown in the diagram.

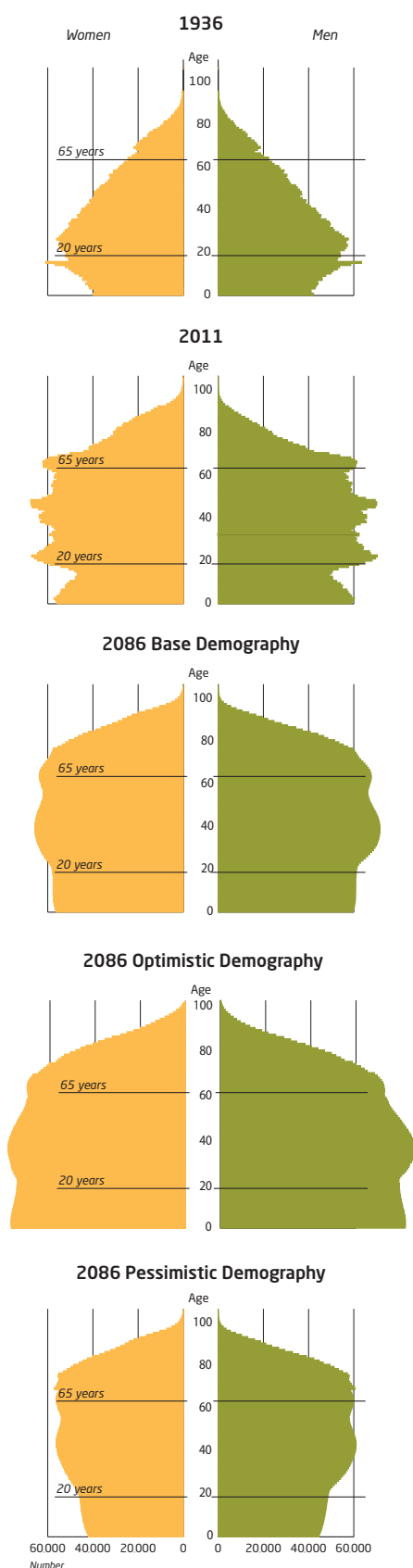
In the diagram one can compare the development of real earnings (per employee) over ten-year periods with the real world-wide rate of return on equities over periods of 10 and 35 years, respectively. The reason for using the world-wide rate of return in this case is that most of premium pension capital is invested in foreign equities. Moreover, foreign equities account for the bulk of National Pension Fund share capital.

Only over a 35-year period is the real change in value for equities world-wide comparable in stability to the development of Swedish real earnings over a 10-year period. The development of real earnings is the principal factor governing the change in the value of the inkomstpension. However, real earnings per employee during the period 1918–2011 increased by 2.4 percent per year, much less than the rate of return on equities of 5.9 percent per year. The difference was most pronounced in the 1980's and 1990's.

Three Scenarios for the Future of the National Pension System

Population 75 Years Ago, at Present, and in 75 Years in the Two Demographic Scenarios

Source: Statistics Sweden (SCB)



To show how the financial position of the inkomstpension and the size of pensions can be affected in the long term by different paths of development, this section presents projections of the system's development for the next 75 years.

The long-term financial development of the inkomstpension system is described below in three different projections, referred to as the base, optimistic and pessimistic scenarios, and the assumptions for the calculations are the same as in previous Orange Reports. Three principal aspects are discussed:

- Net contribution
- Fund strength
- The balance ratio

The net contribution is the difference between the system's contribution revenue and pension disbursements. For a better comparison, the net contribution is expressed as a percentage of total paid-in contributions; this adjusts for the volume effect of long-term economic growth. The net contribution corresponds (after deduction for costs of administration etc.) to the primary net lending of the system. In addition, total net lending includes the net return of the National Pension Funds, which consists of interest income and dividends on shares.

Net Lending of the Inkomstpension System in 2011, Billions of SEK

(1) Net contribution	-4.7
Contribution	214.
Pensions	219.6
(2) Costs of administration etc., net	3.8
(3) Primary net lending (1) - (2)	-8.5
(4) Return	25.0
of which Interest income	11.9
of which Dividends on shares	13.0
Net lending (3) + (4)	16.5

Source: NIER, supporting documentation for analysis, December 2011

Net lending contributes to the change in the size of the National Pension Funds. In addition there are fluctuations, sometimes considerable, in the market value of securities. In 2011 the assets of the buffer fund (the First-Fourth and Sixth National Pension Funds) decreased by a total of SEK 22 billion, partly because of financial worries throughout the world and partly because pension disbursements slightly exceeded contribution revenue.

Fund strength is the market value of National Pension Fund capital divided by pension disbursements for the year. Fund strength shows how many years of pension disbursements can be financed by the fund. For the year 2011, fund strength was 4.1.

The balance ratio is a measure that summarizes the financial position of the pension system. The balance ratio is the ratio between the total assets of the system and its liabilities. The assets consist of the contribution asset (the value of the contributions to which the system is entitled), with the addition of the market value of the National Pension Funds. (For a more detailed discussion, see "How the National Pension System Works" and Appendix B.)

The future financial position of the pension system will depend on the development of several demographic and economic factors. The three scenarios studied differ in the following respects:

- change in the number paying contributions
- growth in average income
- return on the National Pension Funds

The number **paying contributions** is determined by the working-age population and the proportion thereof with earned income or other pension-qualifying income subject to contributions. The size of the working-age population depends primarily on net immigration and – in the longer term – the birth rate. In the base scenario, the main alternative in Statistics Sweden's 2011 population projection is used. In the optimistic and pessimistic scenarios, the starting point is Statistics Sweden's high and low assumptions, respectively, in the population projection from 2009.

The development of the number paying contributions is of major significance for the financial position of the system. Pensions and the pension credit earned by the gainfully employed are revalued annually by the change in average income (the income index). If there is an increase in the number of people with incomes who are paying contributions, the consequences will be that total contributions rise more than average income, and that the net contribution, the buffer fund and the balance ratio all increase.

The change in the average income of the economically active is of limited importance for the net lending of the pension system, for pensions are linked to the income index, which follows average income. A change in average income results in corresponding changes in the contribution inflow and in pension disbursements. In principle, therefore, a change in average income will have no effect on the relative net contribution. However, because the system is designed with delays in the effect of income changes on the income index, a change in average income will give rise to certain discrepancies, and these will also have repercussions on the balance ratio. On the other hand, the level of future pensions, with a given net contribution, will be heavily influenced by the long-term growth of the income index.

The return on the National Pension Funds affects the size of the Funds and thus fund strength and the balance ratio as well. The negative effect of weak growth in the net contribution on fund strength and the balance ratio can be offset by a high return on fund capital. In the base scenario, the real

Base Scenario

The demographic development in the base scenario follows the latest population forecast of Statistics Sweden from 2011. In this projection the birth rate is assumed to be 1.83 children per woman during the period. In 2011 the average life span for men was 79.5 years; it is expected to increase to 84.1 years in 2050. For women the average life span is expected to increase from 83.4 to 86.4 years during the same period. For the remainder of the time until the end of the projection period in 2085, the average life span will increase by another 2 years for both men and women. In the past 20 years net immigration has averaged 24,400 persons per year. In 2006 net immigration (partly because of the temporary law on asylum) was 50,000 persons. In the initial years of the projection through 2015, net immigration is assumed to be 25,000 persons. After 2015, net immigration will decline continually to 20,000 in 2085. The employment rate is expected to increase – mainly among the elderly and immigrants – until 2030 and then to remain constant. Total employment will increase from 80.1 to 82.3 percent in 2030. Real growth in

average income is assumed to average 1.8 percent per year. The real rate of return on the buffer fund is assumed to remain unchanged at 3.25 percent per year. The same return, after costs of administration, has been assumed for the premium pension funds in the calculation of the future premium pension for a newly retired individual.

Optimistic Scenario

The demographic assumptions do not follow the base scenario. Both nativity and net immigration are higher than in the base alternative. In the long run, nativity is estimated at 2.05 children per woman, and long-term immigration is assumed to generate a surplus of some 30,000 persons. Mortality, however, is assumed to remain at its most recently observed level, with the result that life expectancy is 83.4 years for women and 79.5 for men during the period from 2012 to 2085. Employment is assumed to follow the same path as in the base scenario. The real growth in average income is 2.0 percent after 2011, and the real rate of return on the buffer fund is 5.5 percent.

Three Scenarios for the Future of the National Pension System

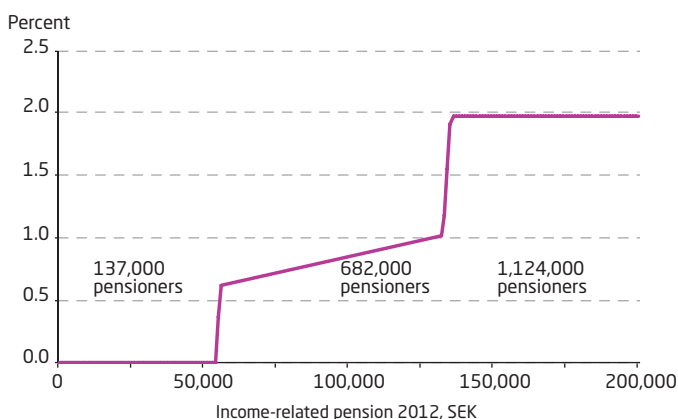
return used is 3.25 percent; in the optimistic and pessimistic scenarios, a higher and a lower return, respectively, are used. A factor of fundamental importance for both fund strength and the balance ratio is the difference between the return and the average income. This is due to the fact that both pension disbursements and the system's pension liability grow at the same rate as average income, whereas the market value of the National Pension Funds grows with the return and is included in the numerator both for the measure of fund strength and for the balance ratio.

In summary, it may be said that in all three scenarios, the net contribution is negative starting in 2011 and continuing for a considerable number of years. Pension disbursements are thus expected to exceed contribution revenue, but only in the pessimistic scenario does this development gradually exhaust the buffer fund. The fund is exhausted because of a smaller number of persons of working age and the low return of the fund in this scenario.

The financial position of the inkomstpension system deteriorated in 2008; as a result, balancing was activated for the first time in 2010. The financial position of the system improved in 2010 and 2011 – see the section The Orange Report in 7 Minutes. The balance ratio for 2013 has been calculated at 1.0198. Consequently, the inkomstpension and supplementary pensions to be disbursed in 2013 will be raised by almost 2 percent compared to a situation without balancing. To some extent the increase in pensions will

reduce the guaranteed pensions disbursed. For pensioners with an income-based pension between about SEK 54,000–135,000, the guaranteed pension is reduced by 48 percent of the increased inkomstpension, and for those with a lower pension the reduction will be 100 percent. In 2011 there were 682,000 pensioners with a guaranteed pension in the interval with a 48-percent reduction, and there were 137,000 in the interval with a 100-percent reduction of the guaranteed pension. The diagram below shows the effect of balancing on the total pension. Balancing will be activated for varying lengths of time in the three scenarios. In the base scenario the balance ratio will be approximately 1.0 until 2025; thereafter, its value will exceed one.

Effect of Balancing on the Total Pension in 2013



The return for the premium pension is also assumed to be 5.5 percent, after costs of administration. From an historical perspective neither the growth assumption nor the rate-of-return assumption is especially high.

Pessimistic Scenario

The assumptions in the pessimistic scenario about birth rates and net immigration are lower than in the base alternative. The birth rate is assumed to be 1.66 children per woman. Net immigration is assumed to average 16,000 persons per year in the years until 2015 and 10,000 per year thereafter. The birth rate and migration follow the low assumptions of Statistics Sweden in the population project from 2009. Life expectancy increases for women from 83.4 years to 89.7 in 2050. The corresponding ages for men are from 79.5 to 86.6 years. The assumption about labour force participation is the same as in the base scenario, but here the real growth in average income in the long run is 1 percent. With a return equal to the increase in average income, the return on the buffer fund provides no contribu-

tion, in principle, to the long-term financing of pensions. The buffer fund becomes a demographically determined repository for pension capital, with a neutral effect on the financing of the system. With the assumptions in the pessimistic scenario, the inflow of contributions will increase slowly in relation to the desired indexation of average income. The pessimistic scenario describes how pensions are affected by long-lasting weakness in the development of demographic and economic factors.

Net Contribution

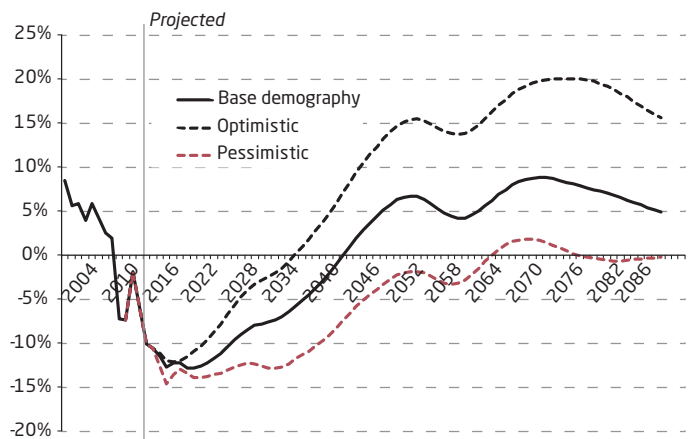
As previously noted, the net contribution is the difference between contribution revenue and pension disbursements. Since the birth cohorts in the population differ in size and have worked to somewhat differing degrees, the contribution revenue and pension disbursements of the system will vary over time. For a better comparison of the net contribution in the three scenarios, the net contribution has been divided by the inflow of contributions in the scenario. This eliminates the volume effect of the differing growth rates on the net contribution in monetary terms.

When the ATP system was introduced in 1960, the contributions assessed exceeded pension disbursements, which initially were relatively low. The net contribution has varied – considerably since 1980. The variations are explained primarily by changes in rules, in regard both to the contribution percentage, which has affected revenue, and to calculations of the base amount, which have affected expenditure. A certain portion of the variations in net contribution are explained by changes in the number of pensioners and the number gainfully employed.

The net contribution was negative in 2009, the principal explanation for this development being that the large birth cohorts of the 1940's are now leaving the labour force and retiring. Around 2020 this weakening tendency will diminish, and the contribution deficit will gradually decrease. After 2035 revenue will exceed expenditure in the base and optimistic scenarios. In the pessimistic scenario, however, the net contribution will remain negative until 2065.

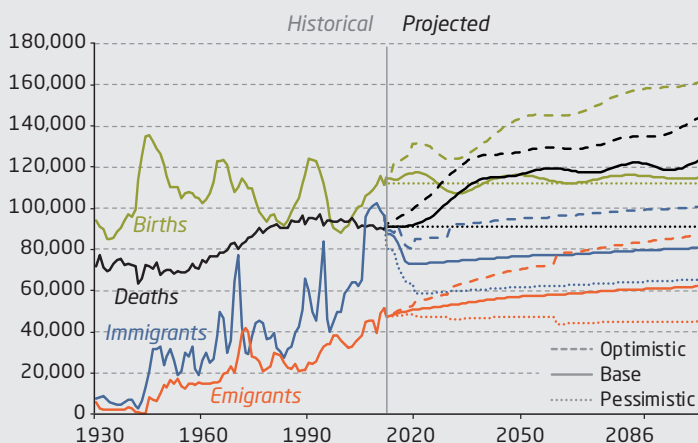
Net Contribution

Contribution revenue less pension disbursements as a percentage of contribution revenue



Description of the Assumptions in the Scenarios

Births, Deaths, Immigration and Emigration, 1935–2011, and Assumptions Through 2086



The diagram shows population growth since 1930 and the assumptions for the next 75 years. The large birth cohorts of the 1940's, the 1960's and the 1990's are readily apparent. The number of deaths increases each year, not because of higher mortality, but because of a larger population. The peak years of immigration are in the 1960's and 1970's, when a large number migrated to Sweden in order to work, primarily from Finland. There was another peak in the early 1990's, when many refugees came to Sweden from ex-Yugoslavia. The peaks of immigration in the last few years are also quite visible.

The Buffer Fund - Fund Strength

The size of the buffer fund is expressed in terms of fund strength, that is, the fund capital at year-end divided by pension disbursements for the year. Fund strength shows how many years of pension disbursements the fund can finance without additional contributions or return in the future. The different development of the buffer fund in the three scenarios is due to differences in net contribution and in the assumed return on the fund.

Historically, fund strength has been high. As the number of ATP pensioners has increased, however, fund strength has diminished. On average, fund strength has been four to five years since 1990. At the end of 2010, fund strength was 4.1 years.

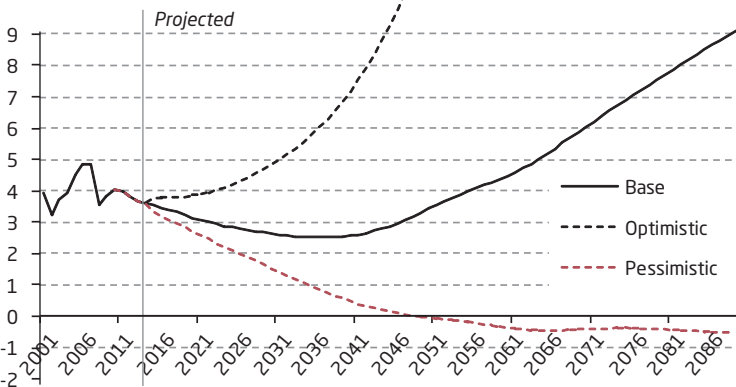
In the base scenario the contribution deficit leads to a slow decrease in fund strength. Fund strength reaches its low point in 2035: slightly less than 2.5 years.

In the optimistic scenario, there is strong growth in fund strength. This is explainable by a high return on the fund in relation to the development of average income, which permits the system to sustain a major contribution deficit. In 2035 the size of the fund is equivalent to nearly six years of pension disbursements, and

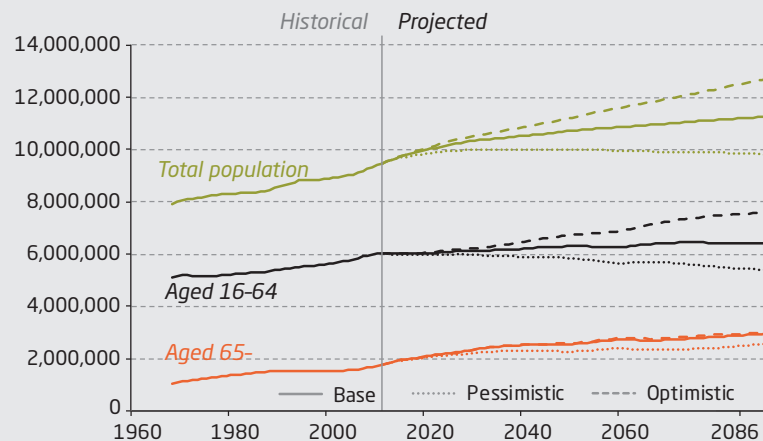
in 2060, to more than 18 years of pension disbursements. In the pessimistic scenario the buffer fund is exhausted around 2050 and thereafter slightly negative (the deficit is regarded as a loan to the funds via the National Debt Office). In the years when the development of the fund is negative, interest is paid on the loans. In the diagram the rate of interest on the loan, via the National Debt Office, is assumed to be the same as the assumed return of 1 percent in the scenario.

Fund Strength in Years

Size of buffer fund divided by pension disbursements the same year



Size of Population, etc.



The number of persons over 65 does not change substantially from one scenario to another since the assumptions of mortality are the same in all scenarios. The number of persons with an income refers to those with incomes over one income-related base amount. The historical data are estimated.

The assumption as to the proportion with income is the same in both the base scenario and the pessimistic scenario. In the optimistic scenario the proportion with income is higher.

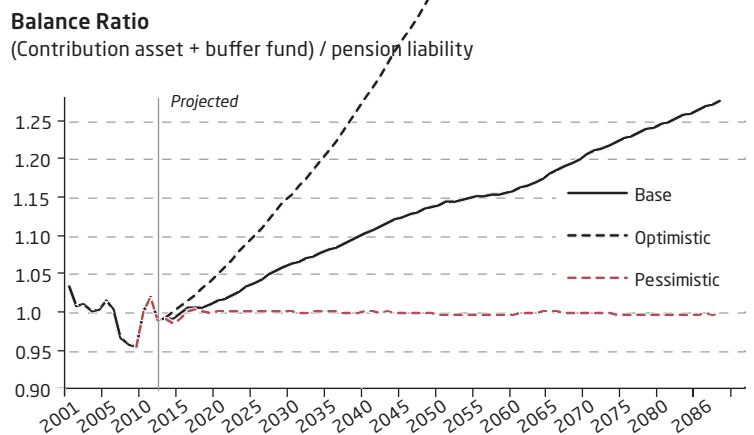
Financial Position of the Inkomstpension (balance ratio)

The financial position of the inkomstpension is expressed in terms of the balance ratio. When the balance ratio drops below one, liabilities exceed assets, and balancing is activated. A balance ratio of 2.0 means that assets are twice as great as liabilities and that the system in principle is fully funded.

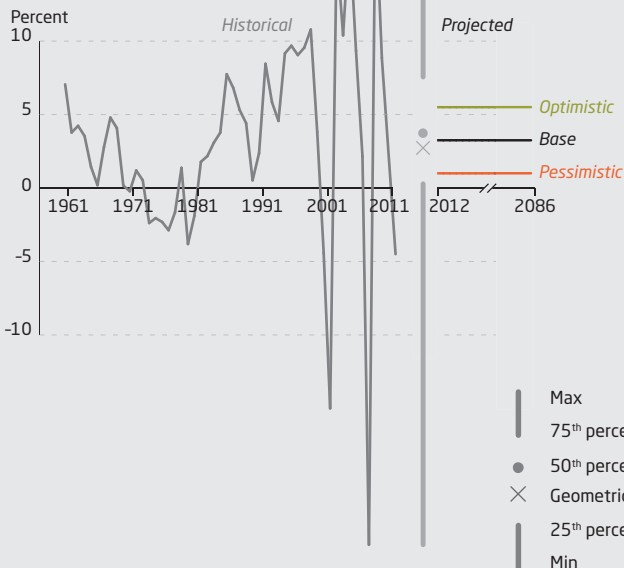
In the base scenario the balance ratio varies around 1.0 until 2017. Thereafter, the balance ratio gradually strengthens because of demographic factors, and the buffer fund yields a better return than the income index. By 2040 the balance ratio reaches the level of 1.1, which according to the proposal in "Utdelning av överskott i inkomstpensionssystemet" (Distribution of Surpluses in the Inkomstpension System, SOU 2004:25) would mean that there was a distributable surplus. However, no such proposal has been made to the Swedish Parliament.

In the optimistic scenario the balance ratio increases continually. With the high return the buffer fund strengthens. From 2025 on, the balance ratio exceeds 1.1.

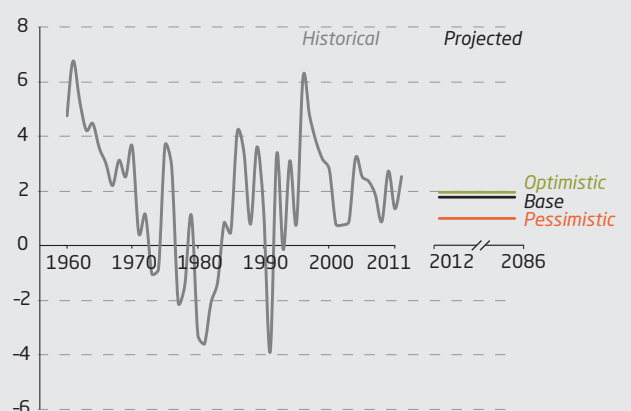
In the pessimistic scenario balancing remains activated in the system. The explanation lies partly in poorer population growth and partly in the low return of the buffer fund. As a result of balancing, the interest on the liability of the system is the same as the rate of growth in system assets. For this reason the balance ratio subsequently stabilizes at a level of 1.0.



Real Return on the Buffer Fund, 1960-2011, and Assumptions until 2086



Real Growth in Earnings, 1960-2011, and Assumptions until 2086



Development of Pension Levels for Different Birth Cohorts

In this section it is shown how the pension level at age 65 develops for age groups 1946–1995 in three different scenarios. The effect of the scenarios on the pension level has been adjusted to exclude the effect of other factors;

this has been done by calculating pensions for an individual who has worked for 42 years before retiring at age 65 and with an income that increases at the same rate as incomes in general. The pension level is calculated as the newly granted income-based pension at age 65 as a percentage of final earnings. In the Orange Reports of previous years, the presentation was different from the one this year.

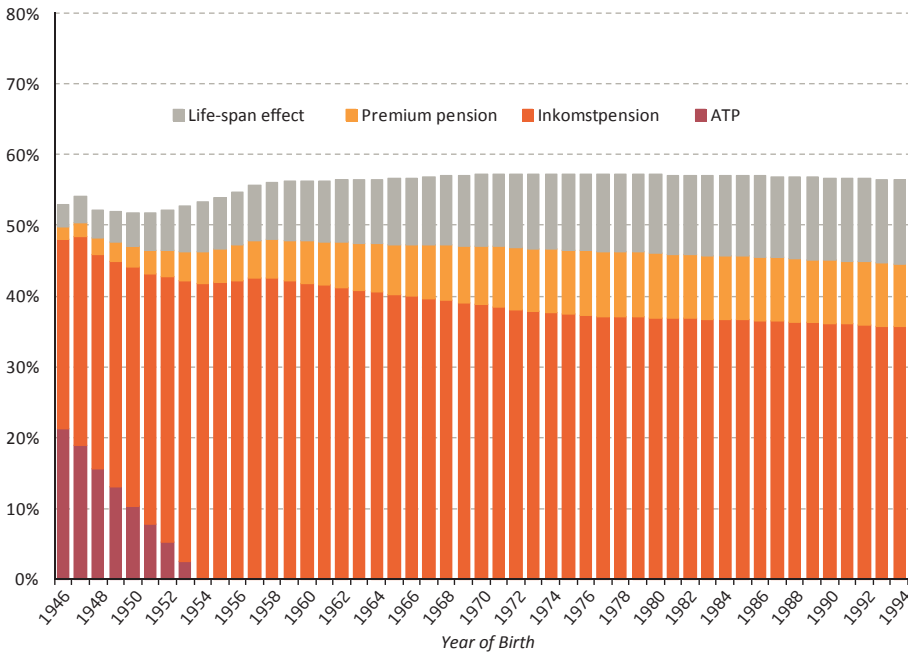
The pension levels in the scenarios at age 65 are shown in the following bar graphs, one for each scenario.

In the base scenario the pension level at age 65 drops from 50 percent of final earnings for birth cohort 1946 to roughly 45 percent for birth cohort 1995. The decrease is a consequence of the

expected increase in life expectancy. If the number of economically active years is extended so as to neutralize the effect of the increase in life expectancy, the pension level stabilizes at around 57 percent of previous earnings.

The reason for the increase in the pension level is the premium pension, which yields an excess return in relation to growth in earnings. As a result of the excess return, the premium pension will be higher in relation to the national pension than the equivalent proportion of its contributions.¹⁴

Pension at 65 in Percent of Final Earnings, Base Scenario



¹⁴ Another reason why newly granted premium pensions are relatively greater is that the interest credited in the annuity divisor is higher for the premium pension than for the inkomstpension; see the section “How the National Pension Works” and Appendix A.

Other Assumptions in the Calculations

The guaranteed pension is price-indexed, which means that those with the lowest pensions will receive an increasingly low pension in relation to average income and that the tax element of the pension contribution for low-income earners diminishes. The effect over the 75-year period is very powerful. With a 1.8 percent annual increase, average income in 2090 is nearly four times what it was in 2012 [4≈1.01878]. Consequently, the guaranteed pension is of totally marginal significance toward the end of the calculation period.

With the pension liability indexed to growth in average income, it may appear unnecessary to vary the growth in average income in the scenarios. The inkomstpension system is design to adjust the value of pensions in relation to the development of average income. However, since pension points earned are indexed by the development of prices, the inkomstpension system is initially unstable in relation to growth in average income. Furthermore, the relationship between the increase in average income and the return on the buffer fund

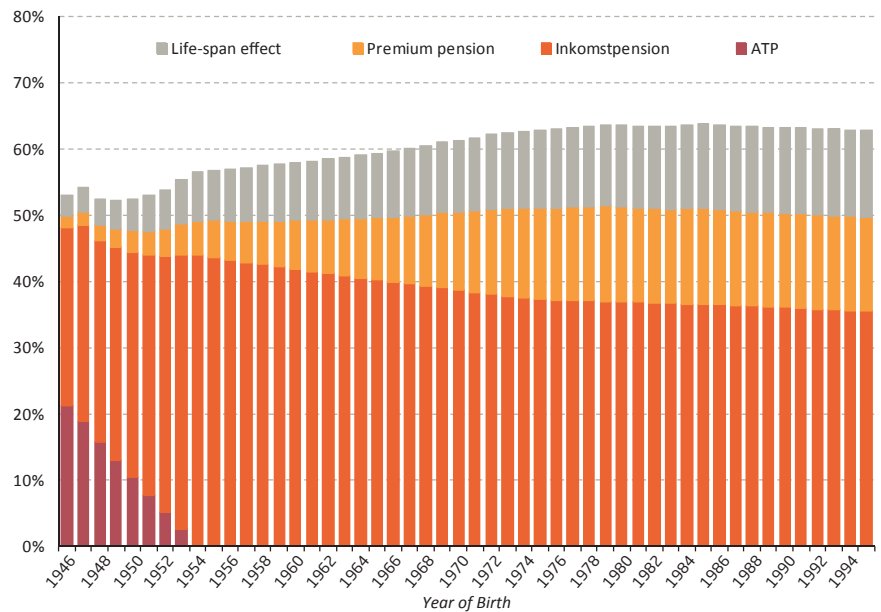
is of importance for the financial development of the inkomstpension. Via the premium pension, the relationship of the return to the growth in average income also has an impact on the level of pensions. The contribution of the buffer fund to the financing of the inkomstpension differs in the three scenarios. In the base scenario the return on the buffer fund exceeds the growth in average income by 1.45 percent (3.25-1.8). In the optimistic scenario the return exceeds the growth in average income by 3.5 percent. In the pessimistic scenario the return is equal to the growth in average income.

For the youngest birth cohorts, the premium pension will be about 9 percent of final earnings, and the inkomstpension around 36 percent.

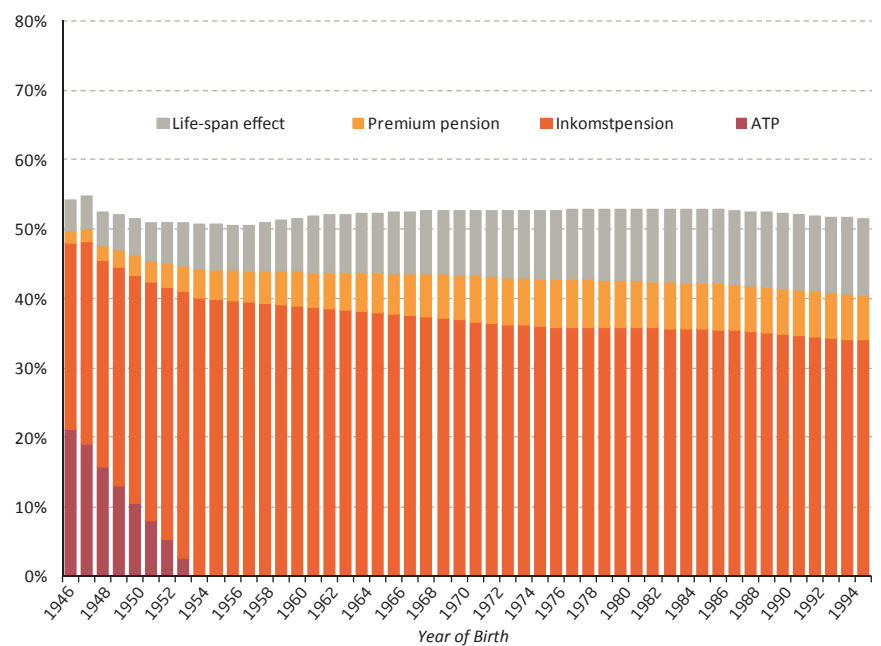
A longer working life results in a higher pension both because of the additional pension credit earned and because of the lower annuity divisor used in calculating the pension. About 67 percent of the total increase in life span will be added to the period of working life, while 33 percent can be added to the years of retirement with an unchanged pension level. The effect of an extended period of working life on the retirement age (that is, the retirement age required to maintain the same pension level as for older birth cohorts) is shown in the table on page 30.

In the optimistic and pessimistic scenarios, the growth in average income is higher and lower, respectively, than in the base scenario. When balancing is not activated, the inkomstpension accrues interest (is indexed) according to the growth in average income and thus increases at the same rate as average income. The relationship between pensions and average income is then unaffected by this growth, and pensions remain unchanged in proportion to income. On the other hand, the inkomstpension will of course be less in monetary terms if growth is lower and greater if growth is higher.

Pension at 65 in Percent of Final Earnings, Optimistic Scenario



Pension at 65 in Percent of Final Earnings, Pessimistic Scenario



Life Expectancy Effect and the Required Retirement Age

The table below shows how an expected continuing increase in life expectancy affects the retirement age compared with persons born in 1930, who were 65 years old at the time of the decision on the principles for reforming the pension system. Statistics Sweden assumes that life expectancy will continue to increase in the future. Thus, life expectancy at age 65 increases from 17 years and 5 months for individuals born in 1930 to 22 years and 5 months for those born in 1995. This is an increase of 5 years in remaining life expectancy for birth cohort 1995 relative to persons born in 1930. If those born in 1995 are to have the same pension level as those born in 1930,¹⁵ a portion of the anticipated increase in remaining life expectancy at age 65 must be spent working further. For birth cohort 1995 the duration of working life must be increased to 68 years and 10 months. At the same time, those born in 1990, despite the higher retirement age, can look forward to being pensioners for 1 year and 8 months longer than persons born 1930.

¹⁵ After 42 years of gainful employment.

Alternative Retirement Ages and Time Lived in Retirement

Birth cohort born in	...reaches 65 in	Life expectancy at 65	Alternative age of retirement	Time spent retired	...compared to birth cohort 1930
1930	1995	82 yr 5 mo	65 yr	17 yr 5 mo	
1940	2005	83 yr 7 mo	65 yr 2 mo	18 yr 5 mo	1 yr
1945	2010	84 yr 3 mo	65 yr 9 mo	18 yr 8 mo	1 yr 3 mo
1950	2015	84 yr 9 mo	66 yr 4 mo	18 yr 8 mo	1 yr 3 mo
1955	2020	85 yr 2 mo	67 yr 2 mo	18 yr 5 mo	1 yr
1960	2025	85 yr 7 mo	67 yr 6 mo	18 yr 7 mo	1 yr 2 mo
1965	2030	86 yr	67 yr 9 mo	18 yr 8 mo	1 yr 3 mo
1970	2035	86 yr 3 mo	68 yr	18 yr 9 mo	1 yr 4 mo
1975	2040	86 yr 7 mo	68 yr 3 mo	18 yr 10 mo	1 yr 5 mo
1980	2045	86 yr 10 mo	68 yr 5 mo	18 yr 11 mo	1 yr 6 mo
1985	2050	87 yr	68 yr 7 mo	18 yr 11 mo	1 yr 6 mo
1990	2055	87 yr 3 mo	68 yr 8 mo	19 yr 1 mo	1 yr 8 mo
1995	2060	87 yr 5 mo	68 yr 10 mo	19 yr 1 mo	1 yr 8 mo

* No annuity divisors have been set for birth cohort 1930 since their pensions were calculated entirely by the rules of the ATP system.

For those born in 1954 and thereafter (that is, for individuals covered entirely by the rules of the new pension system), the alternative retirement age means that on average 2/3 of the increased life span will be spent working, and about 1/3 on a longer time lived in retirement.

About Pension Levels and the Compensation Rate

There are numerous methods of calculating the compensation rate of a pension system. The income with which the estimated pension is compared can be defined in different ways, and there are many possible samples of individuals to select for the calculations. In analyses of the entire population, it is possible to compare pensions with the earnings of the economically active. Studies of individuals and so-called typical cases are usually based on the individual's income. Which income is appropriate for the comparison with estimated pension benefits depends on the income profile used in the calculation. If a straight-line income profile¹⁶ is used, it is natural to compare the size of the pension benefit with the income of the individual in the year

¹⁶ A straight-line income profile means that incomes for all ages grow at the same rate as the general development of incomes until the retirement age. In this situation a straight-line profile means that each year all persons are assumed to have the same pattern of income development until retirement.

before retirement. If a concave income profile¹⁷ is chosen, the question what income to use for comparison with the pension becomes more difficult. If the compensation rate is calculated by comparing the pension with the final year's income, the resulting compensation rate may appear deceptively high. One way to manage the problem is to compare the pension with average income for a number of years prior to retirement, normally the average income at ages 60–64.

An additional question to be answered is whether incomes above the ceiling in the national pension system are to be included in the calculation of comparison income or not. Here we have chosen to include only income insured in the national pension system. Of all pension-qualifying income in Sweden, roughly 9 percent exceeds the pension-credit ceiling of 8.07 income-related base amounts. If income above the income ceiling is added to the comparison income, defined as average PQI for persons aged 16–64 with PQI, the average PQI increases by 10 percent, reducing the pension level by about 9 percent.

Here gross pensions are compared with gross incomes. In 2007 a tax credit for gainful employment was enacted. The credit means that the same tax no longer applies to pensions as to most of the incomes included in pension-qualifying income. In 2008, 2009 and 2010 a reinforced tax credit for gainful employment was passed. Tax relief in the form of a higher basic deduction was introduced in 2009 for those who had reached age 65 by the beginning of the year. In 2010 and 2011 taxes for older persons were reduced further. Of the pension-qualifying incomes under the ceiling, about 94 percent consist of earned income. With the enactment of the tax credits, the pension level decreases by about 1.6 percent, if the differences in taxation among different types of income are taken into account.

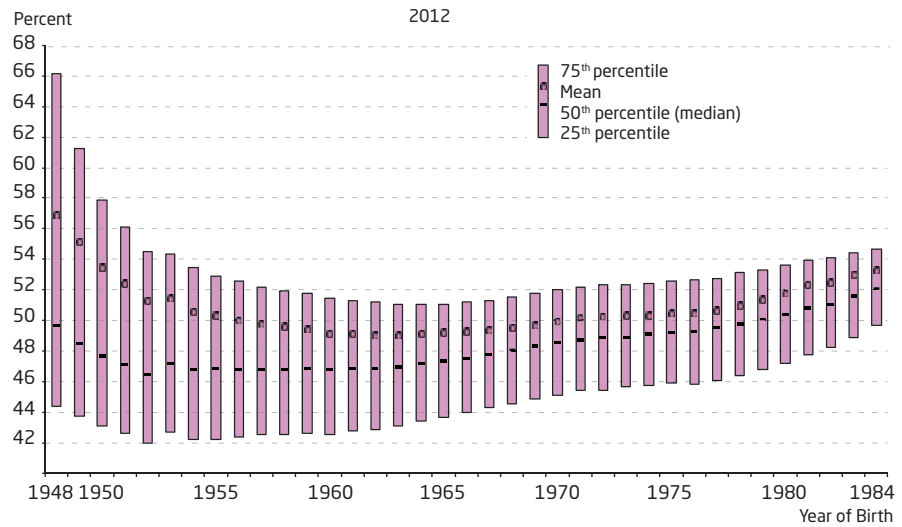
In the Orange Envelope, pension forecasts are made each year for each insured person on the basis of the pension credit actually earned by the individual. When the envelope is sent out in February/March, there are income data up to and including the calendar year two years before the year when the envelope is mailed. Thus, the envelope for 2011 was based on all incomes earned by each individual through 2009. In the forecast, consideration is given to balancing in 2011, but not to balancing in subsequent years. The forecast is based on 0 percent growth for these coming years.

The replacement rate has been calculated on the basis of these forecasts, with each individual's pension projection at age 65 in the alternative of 0 percent growth, excluding any guaranteed pension, divided by the same individual's pension-qualifying income in the year 2010.¹⁸ An average for each birth cohort born between 1948 and 1983 has then been calculated by adding up all replacement rates and dividing by the number of individuals in the birth cohort.

¹⁷ With a concave income profile, the income development of each age group will be age-specific every year until retirement. The concavity means that incomes increase faster early in working life and that from about age 57 the rate of increase will be slower (or even decrease). One explanation for the slower growth of earnings is that working hours decrease at these ages, a tendency that can be viewed as preparation for the transition to retirement. Other causes of reduced incomes may be unemployment or sickness.

¹⁸ For persons with no income this year, no compensation rate can be computed, and they have been excluded from the calculation. Persons with a compensation rate higher than 150 percent have also been excluded from the calculation. The reason is that such high compensation rates are usually due to incomes so low that they are normally temporary.

Replacement Rates in the Orange Envelopes - National Public Pension at Age 65 in Percent of Pension-Qualifying Final Income. Guaranteed Pension Not Included.



Both the assumptions underlying this calculation and the method used differ from those in the calculation of pension levels in the three bar graphs shown previously on pages 28–29. In the diagram above, the comparison income is the income below the ceiling on earnings in 2010 for the respective individual – which corresponds to forecast final earnings since it is assumed that there will be no real growth in earnings. For young individuals, with few years of pension credit earned, this means that the replacement rate has been calculated with a virtually straight-line earnings profile. For persons relatively close to the retirement age, pensions are calculated on the basis of many years of actual income history – which on average means a concave profile.

The high replacement rates for the oldest birth cohorts are partly due to the fact that their own incomes, which have been used as comparison incomes, have begun to decrease. As a result, the replacement rate will be higher with the method used here. An additional explanation is that for older birth cohorts a portion of their pensions is calculated by the ATP rules, which on average are more generous. The reason why the spread in replacement rates decreases with each younger annual birth cohort is that the calculation becomes increasingly fictitious and straight-line for each younger cohort. The weak increase in replacement rates beginning with the cohorts born 1960 is explained by the greater importance of the premium pension for these cohorts. With the assumed excess return of 3.5 percent, and the assumption that life expectancy will increase at a lower rate, there will be a slight upturn in the replacement rate (median) beginning with birth cohort 1960. For the younger birth cohorts, the forecast replacement rate is less definite than for the older cohorts, one reason being uncertainty about the development of the premium pension.

Guaranteed Pension and Its Coverage

As a complement to the income-based pension, the guaranteed pension provides basic social security for individuals with little or no inkomstpension. The importance of the guaranteed pension decreases with the number of years of gainful employment.

For a man born in 1980, with an average earned income¹⁹ for men, and with zero real growth in earnings, 37 years of work are required to earn an inkomstpension high enough to reduce the guaranteed pension to zero. A woman born in the same year, with an average earned income for women and with zero real growth in earnings, will not earn an equally high inkomstpension until after 40 years.

With annual growth in real earnings of 1.8 per cent as in the base scenario, the number of years of work required to exceed the limit for the guaranteed pension decreases. For unmarried persons born in 1980, the number of years required is 20 for men and 24 for women. In the last 15 years growth in real earnings has averaged just over 2 percent.

¹⁹ This is roughly equivalent to SEK 358,000 for men and SEK 299,000 for women in the age bracket of 25–34 years. Information from Statistics Sweden's household survey, HEK (Household Finances). HEK 2009, Statistics Sweden, for full-time employees, revised upward by growth in hourly earnings until 2011.

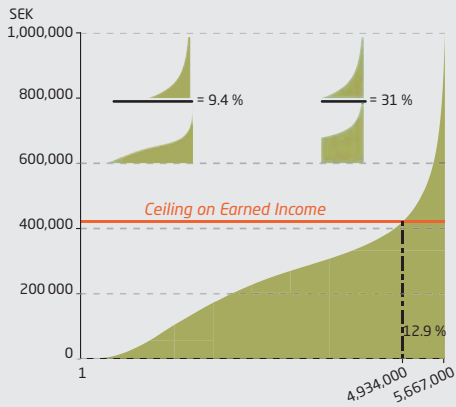
Pension Liability to the Economically Active

The **inkomstpension liability to the economically active** consists of the sum of each birth cohort's pension balances at the end of 2011, with the addition of total estimated pension credit earned during the year. For further information, see Note 14, Table A, and Appendix B, Section 4.

The **ATP liability to the economically active** is calculated with the pension model of the Swedish Pensions Agency. The ATP of each birth cohort is calculated in the year when the cohort reaches age 65. The estimated annual pension is multiplied by the economic annuity divisor for the birth cohort, and the present value of the product is determined. For further information, see Note 14, Table B, and Appendix B, Section 4.

The **premium pension liability to the economically active** consists of the aggregate fund assets of the respective birth cohorts at the end of 2011.

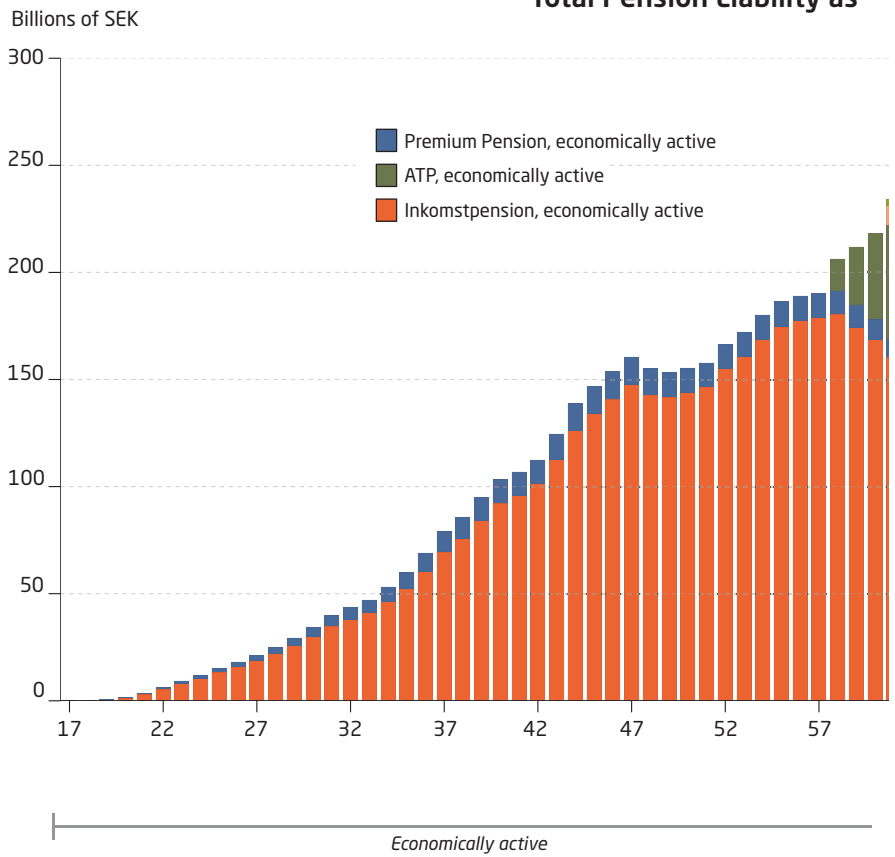
Earned Income



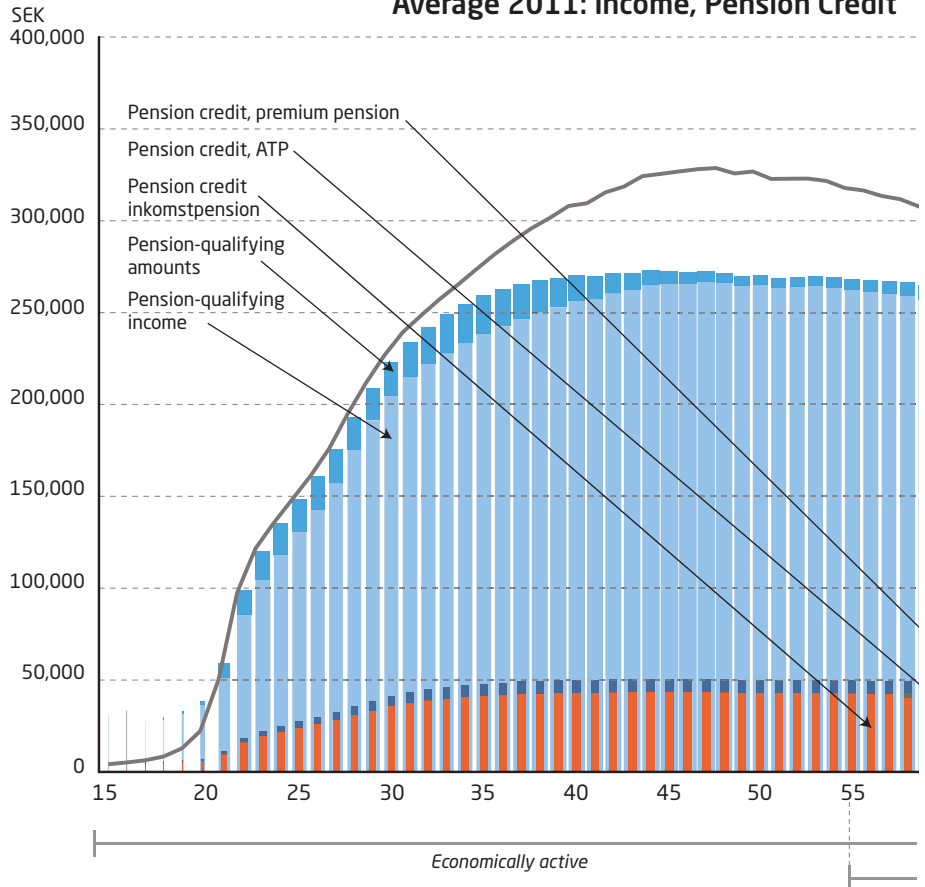
The national pension is based on earned income up to a ceiling of 8.07 income-related base amounts. In the diagram earnings in 2010 are presented in order of size.

By income is meant tax-assessed earned income (wages and salaries, income actively or passively derived from a business, sickness benefits, parental allowances, sickness or activity compensation, etc.) The income is before deduction for the national pension contribution and is shown for persons with incomes above the threshold of 42.3 percent of a price-related base amount.

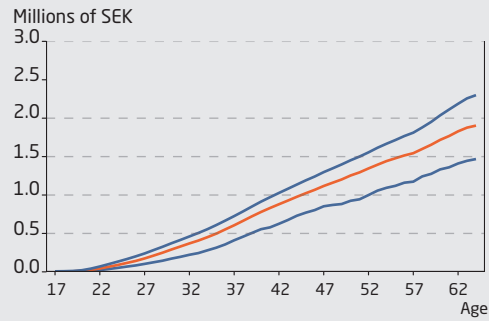
Total Pension Liability as



Average 2011: Income, Pension Credit



Pension Liability to Women Aged 17-64



The red curve represents the median of pension liabilities to women, which is the central value in the scale of values arranged from lowest to highest.

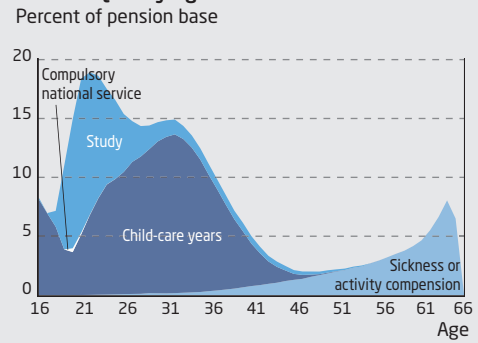
The other curves indicate the values for the 25th and 75th percentiles: i.e. the upper curve represents the value of the pension asset* exceeded by 25 percent of the insured, and the lower curve represents the value of the pension asset not reached by 25 percent of the insured women.

Between the two curves (25th and 75th percentiles) is half of the assets.

The median pension asset for women aged 40 years are approximately SEK 790,000. At that age, about 25 percent have a pension asset above SEK 920,000, and 25 percent have a pension asset below SEK 570,000.

* The pension balance of individuals equals the pension liability of the system.

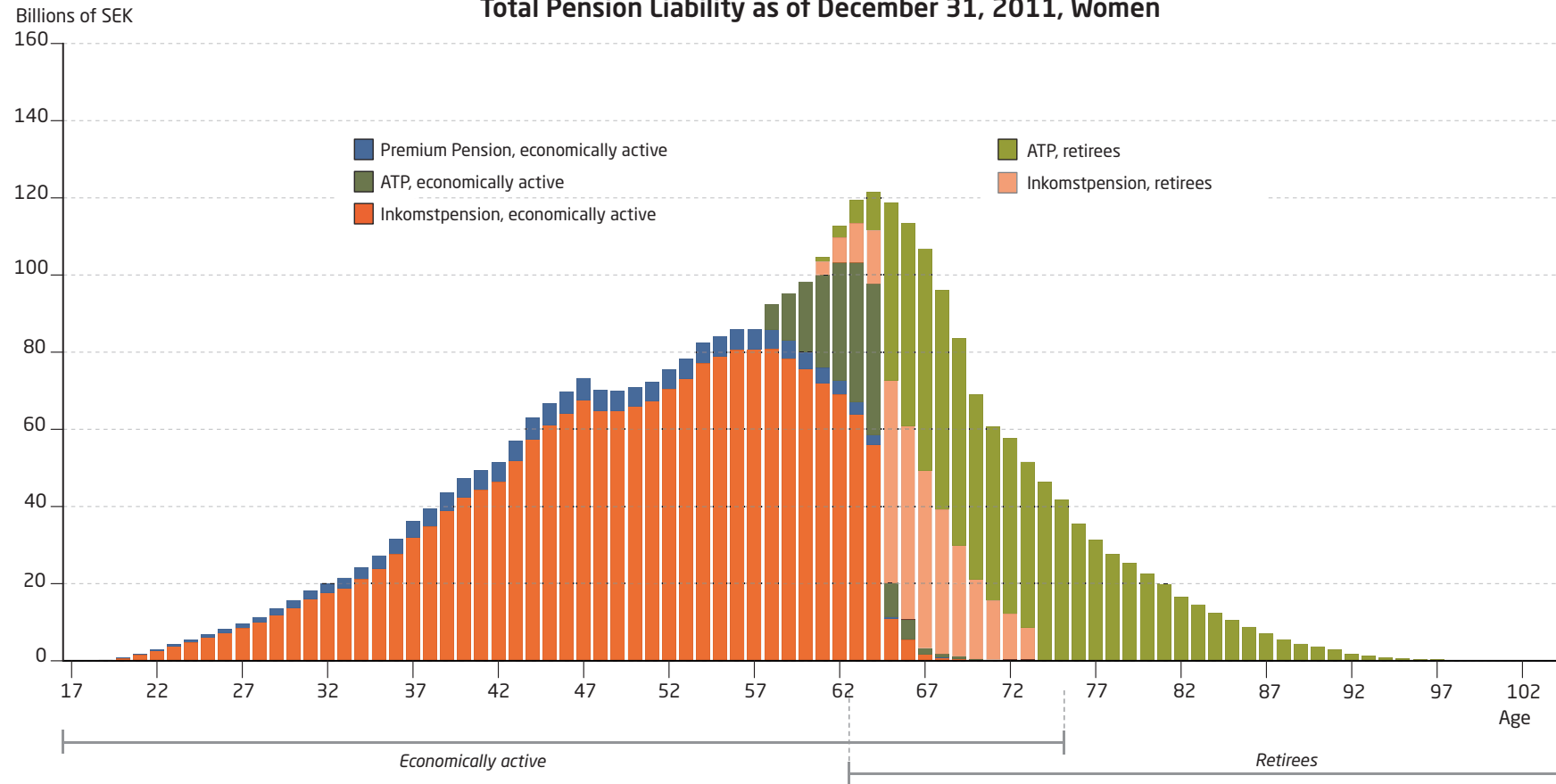
Pension Qualifying Amounts



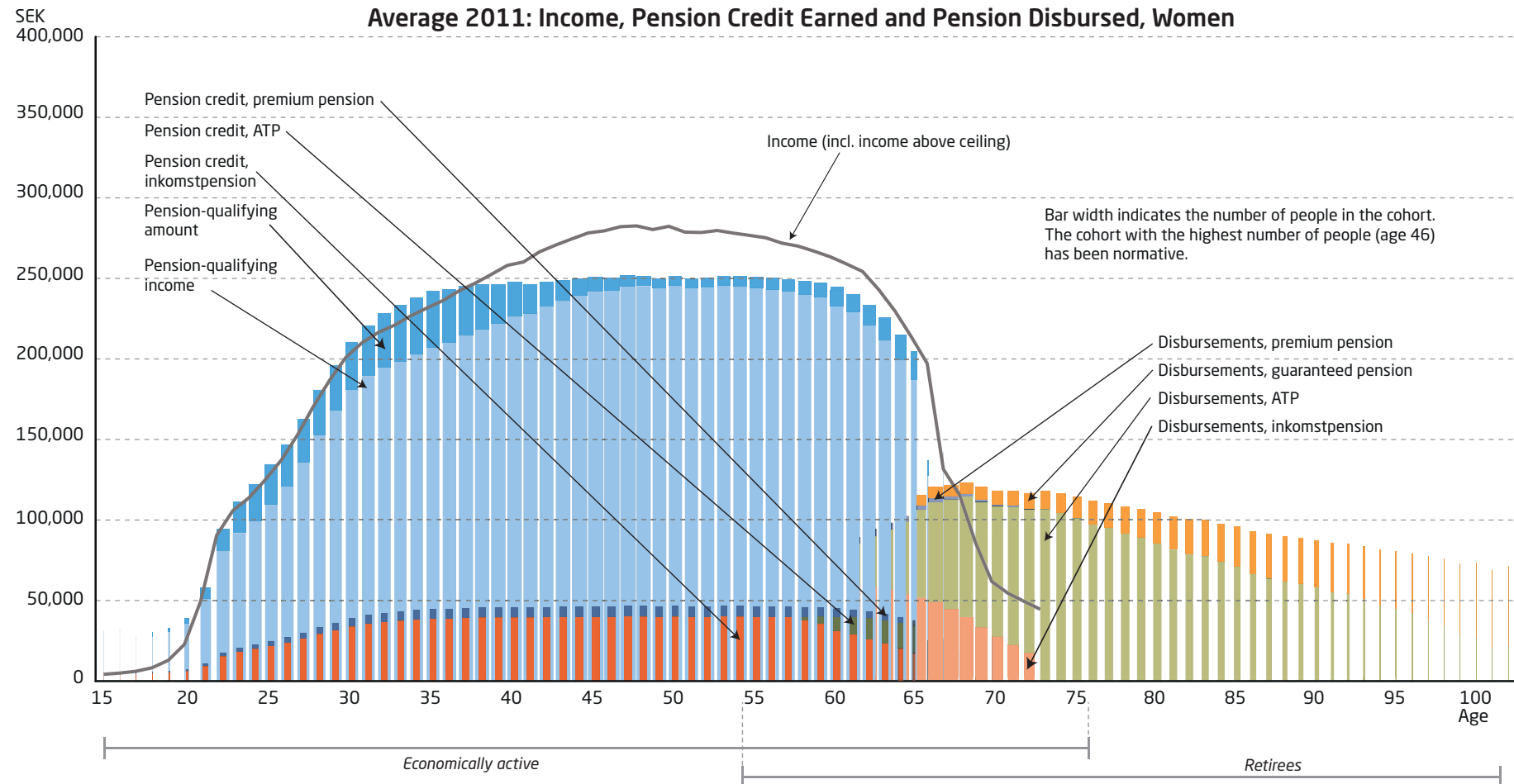
Pension credit is granted for pension-qualifying amounts in particular phases of individuals lives, such as years with small children or of studying. In pay-in year 2010 pensions-qualifying amount constituted 7 percent of the pension base for women. The largest portion of this share, 4 percent, consisted of amounts for years with small children.

From a life cycle perspective, women receive the highest share of pensions qualifying amount in young ages, mainly for child caring but also from studying, while in older ages the main sources of pensions qualifying amount comes from receipt of sick insurance.

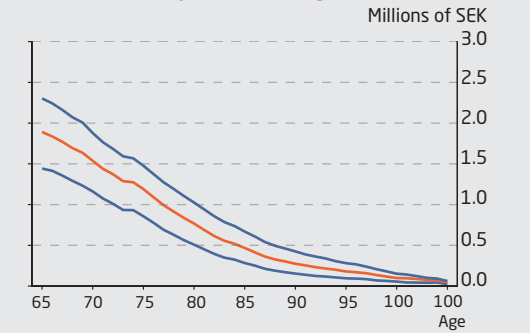
Total Pension Liability as of December 31, 2011, Women



Average 2011: Income, Pension Credit Earned and Pension Disbursed, Women

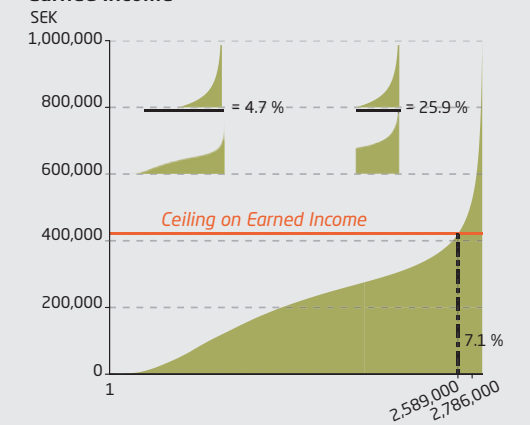


Pension Liability to Women Aged 65 and Above



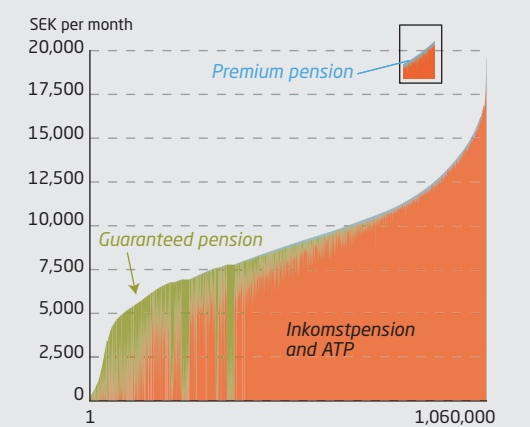
For 25 percent of retired women, the pension asset exceeds SEK 2,330,000 at age 65. The median at that age is SEK 1,860,000, and for 25 percent the pension asset is less than SEK 1,485,000. For a female pensioner at age 75 the corresponding amounts decrease to SEK 1,500,000, SEK 1,200,000 and SEK 850,000.

Earned Income



The national pension is based on earned income up to a ceiling of 8.07 income related base amounts. In the diagram women's earnings in 2010 are presented in order size.

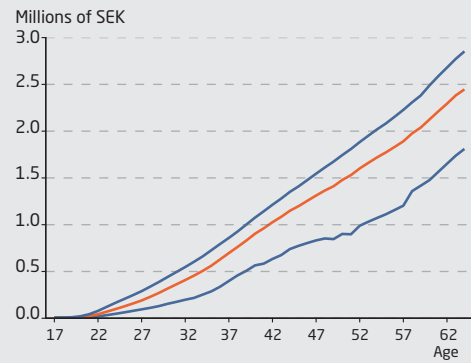
Pension Disbursements



In the diagram disbursements of the national pension in December, 2011 for female pensioners born 1946 or earlier are presented in order size (1,060,000 women).

About 65 percent of all female pensioners receive some guaranteed pension. In total, the guaranteed pensions represent roughly 14 percent of pension disbursements to female retirees.

Pension Liability to Men Aged 17-64



The red curve represents the median of pension liabilities to men, which is the central value in the scale of values arranged from lowest to the highest. I.e. the same number of men have an amount above the median as below it.

The other curves indicate the value for 25th respective 75th percentiles. I.e. the upper curve represents the value of the pension asset* exceeded by 25 percent of the insured, and the lower curve represents the value of the pensions asset not reached by 25 percent of the insured men.

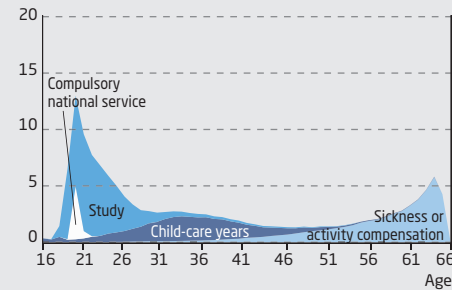
Between the two curves (25th and 75th percentiles) is half of the assets.

The median pension asset for men aged 40 years are approximately SEK 910,000 kronor. At that age, about 25 percent have a pensions asset above SEK 1,080,000, and 25 percent have a pension asset below SEK 580,000 kronor.

* The pension balance of individuals equals the pension liability of the system.

Pension Qualifying Amounts

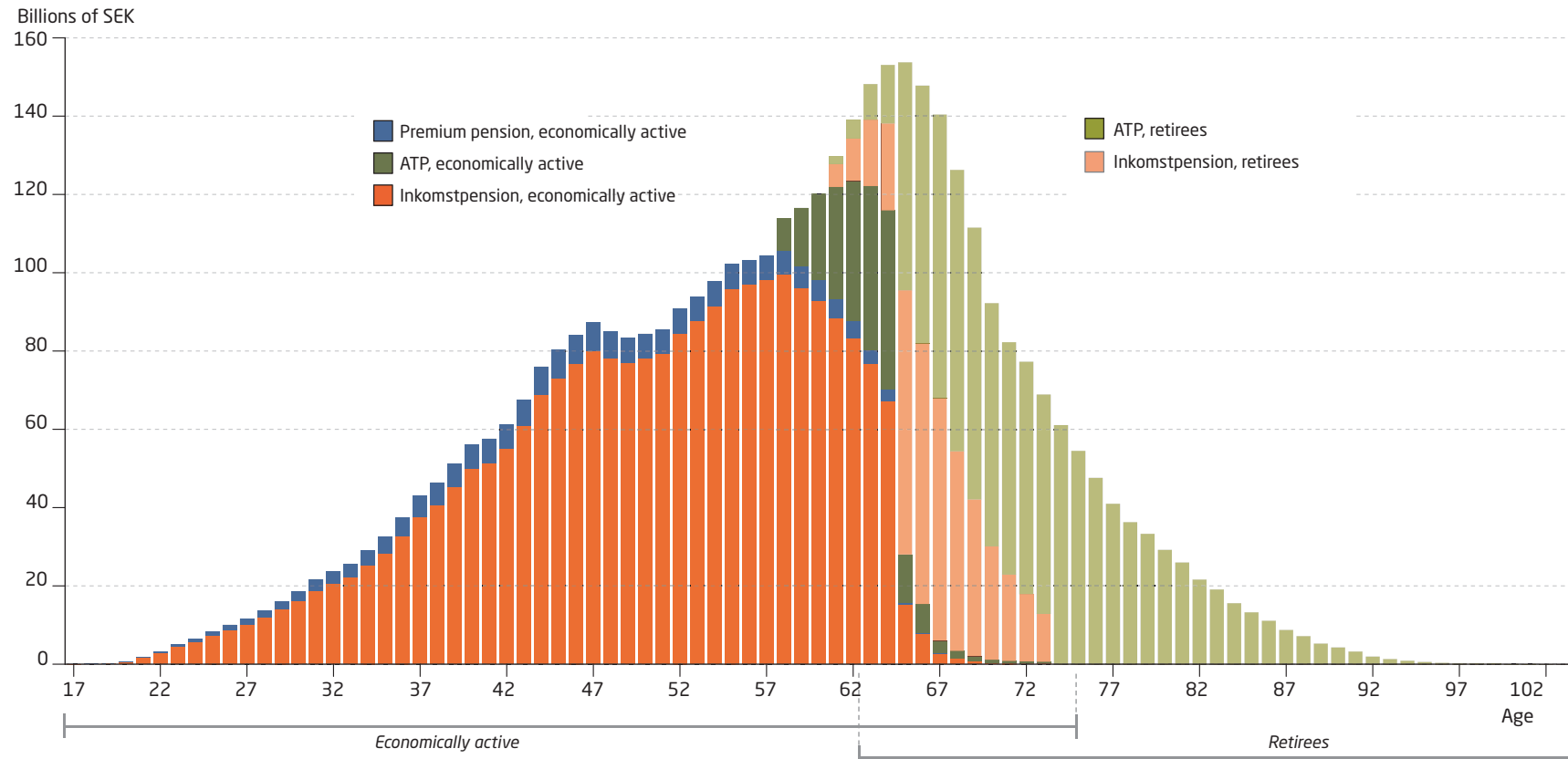
Percent of pension base



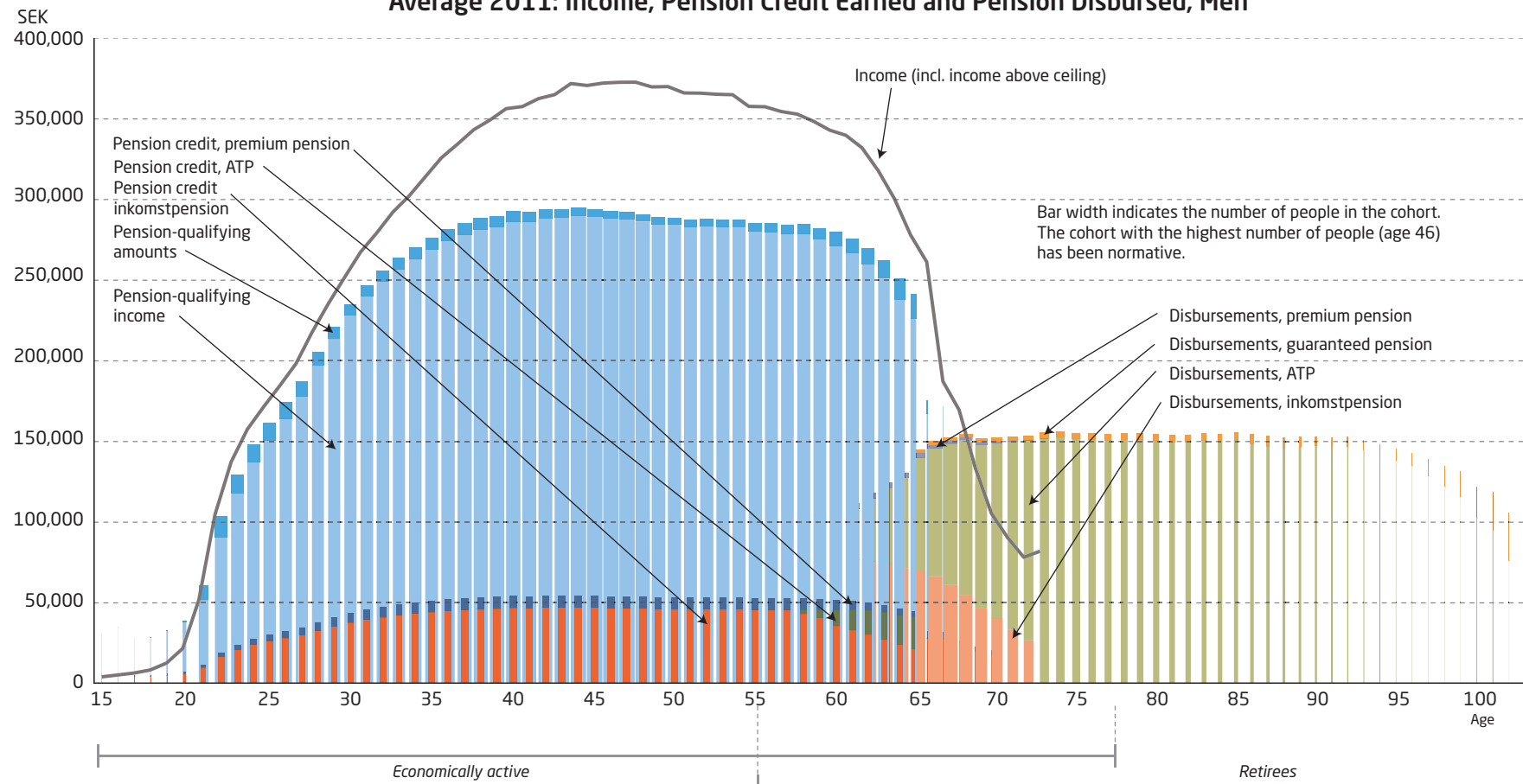
Pension credit is granted for pension-qualifying amounts in particular phases of individuals lives, such as years with small children or of compulsory national service. In pay-in year 2010 pensions-qualifying amount constituted 2 percent of the pension base for men. The largest portion of this share, 1 percent, consisted of amounts for years with small children.

From a life cycle perspective, men receive the highest share of pensions qualifying amount in young ages, mainly for child caring but also from studying, while in older ages the main sources of pensions qualifying amount comes from receipt of sick insurance.

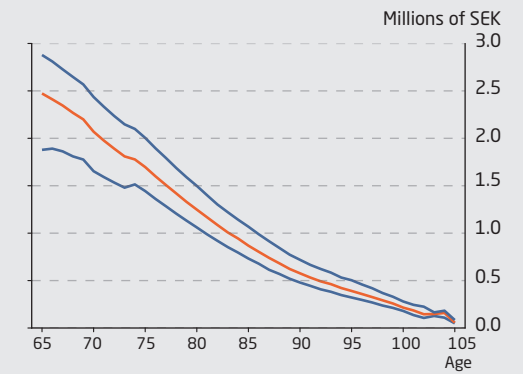
Total Pension Liability as of December 31, 2011, Men



Average 2011: Income, Pension Credit Earned and Pension Disbursed, Men

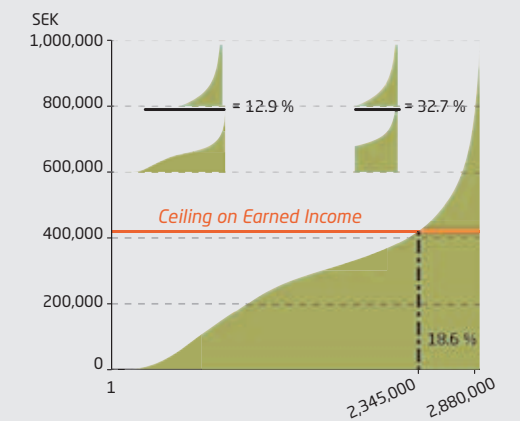


Pension Liability to Men Aged 65 and Above



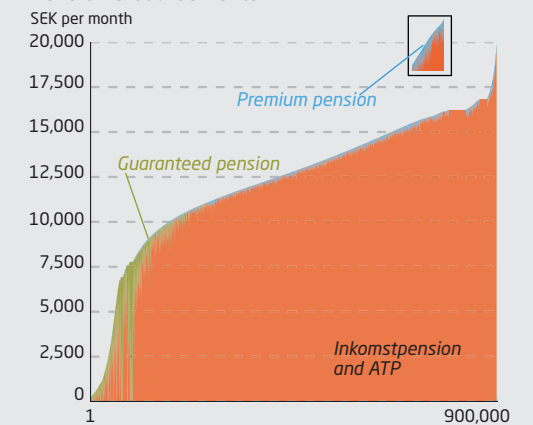
For 25 percent of retired men, the pension asset exceeds SEK 2,850,000 kronor at age 65. The median at that age is SEK 2,500,000 kronor, and for 25 percent the pension asset is less than SEK 2,080,000. For a male pensioner aged 75 the corresponding amounts are SEK 2,080,000, SEK 1,750,000 kronor and SEK 1,500,000.

Earned Income



The national pension is based on earned income up to a ceiling of 8.07 income related base amounts. In the diagram men's earnings in 2010 are presented in order size.

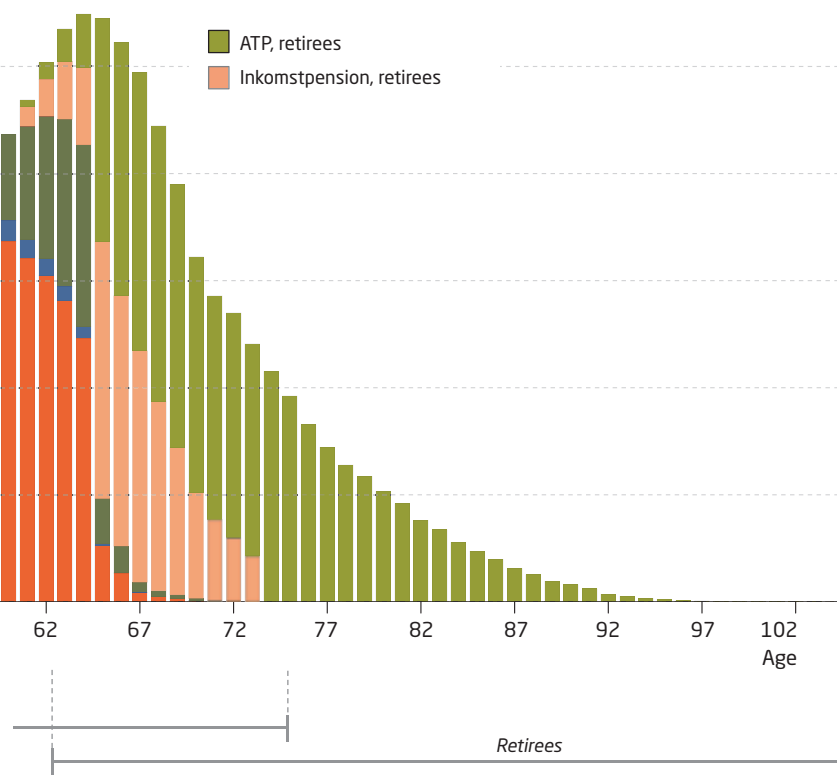
Pension Disbursements



In the diagram disbursements of the national pension in December, 2011 for male pensioners born 1946 or earlier are presented in order size (900,000 men).

About 18 percent of all male pensioners receive some guaranteed pension. In total, the guaranteed pensions represent roughly 2 percent of pension disbursements to male retirees.

of December 31, 2011



Pension Liability to Retirees

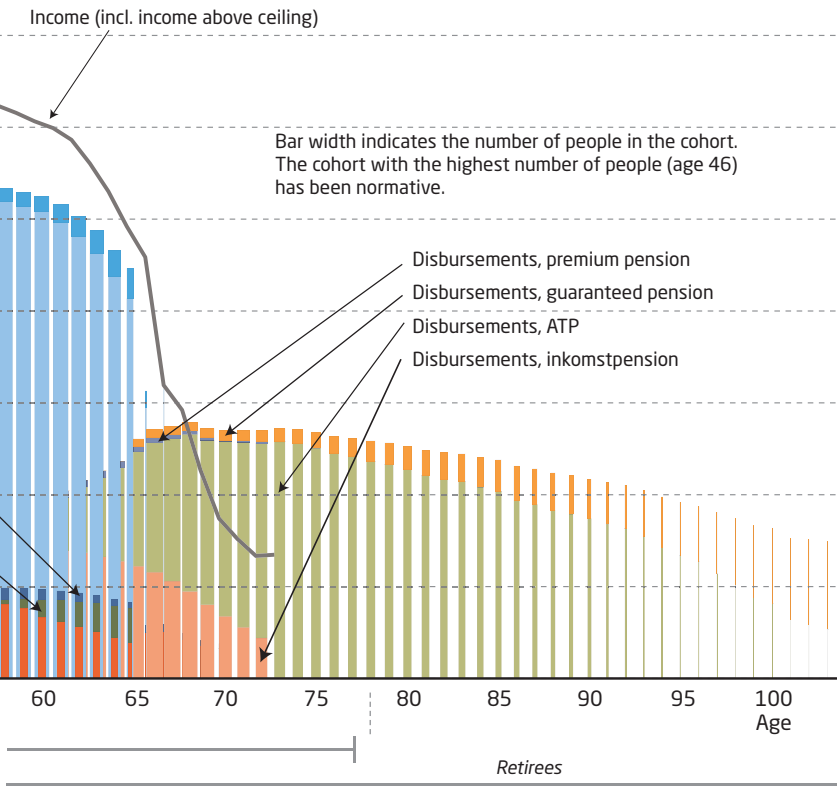
The pension liability to retirees is calculated in the same way for the ATP and the inkomstpension. The sum of pension disbursements to each birth cohort in December 2011 is multiplied by 12, and that annual amount is multiplied by a three-year average of the economic annuity divisor. For further information, see Note 14, Table C, and Appendix B, Section 4.

The premium pension liability to retirees is estimated from aggregate pension disbursements to the respective birth cohorts in December 2011, multiplied by 12 and by annuity divisors for the premium pension.

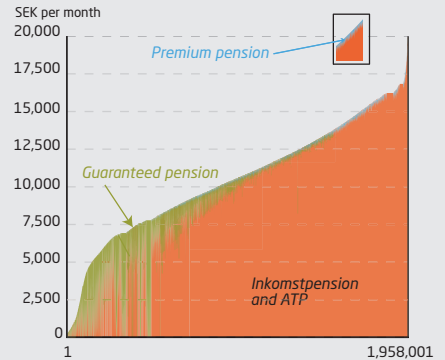
Pension Disbursements

Data on pension disbursements are taken from the Swedish Pensions Agency's records of disbursements and refer to average amounts for all retirees receiving a pension disbursement in 2011. For total disbursements of the inkomstpension and the premium pension, see Note 2.

Earned and Pension Disbursed



Pension Disbursement



In the diagram, disbursements of the national pension in December, 2011, for pensioners born in 1946 or earlier are presented in order of size.

About 42 percent of the pensioners receive some guaranteed pension. In total, the guaranteed pension represents roughly 7 percent of pension disbursements to pensioners.

Pension Credit Earned

Data on income and pension credit are taken from the Swedish Pensions Agency's records of earnings and refer to average amounts for all insured pensions with positive pension credit earned in 2010. For the total pension credit earned in 2010, see the respective income statements and balance sheets for the inkomstpension and the premium pension.

Your pension accounts

Changes in your accounts in 2011, SEK	Inkomstpension	Premium pension
Balance, December 31, 2010	660,950	71,610
Pension credit recorded for 2010	32,110	5,600
Inheritance gain 2020	2,020	140
Charge for administrative costs	- 240	- 70
Change in value	- 34,620	-6,870*
Balance, December 31, 2011**	702,260	70,040

* Includes change in value of funds and interest on pension credit for 2010.

** The difference between the closing balance and the total above is due partly to changes in tax assessment and to the fact that some individuals have drawn a pension during the year.

Your national pension balance

Total balance of your accounts:

SEK 772,300

The Orange Envelope of Mr./Ms. Average Svensson

Returadress: 105 05 Stockholm

All pension accounts

Changes during 2011, SEK*	Inkomstpension	Premium pension
Balance, December 31, 2010	4,090,576,000,000	443,245,000,000
Pension credit recorded for 2010	198,756,000,000	34,671,000,000
Inheritance gain	12,491,000,000	892,000,000
Charge for administrative costs	- 1,479,000,000	- 437,000,000
Change in value	-214,296,000,000	- 42,520,000,000**
Balance, December 31, 2011***	4,346,873,000,000	433,529,000,000

* Rounded off to the nearest million.

** Includes change in value of funds and interest on pension credit for 2010.

*** The difference between the closing balance and the total above is due partly to changes in tax assessment and to the fact that some individuals have drawn a pension during the year.

Our national pension

Total of all orange envelopes:

SEK 4,780,402,000,000

Total of All Envelopes

Returadress: 105 85 Stockholm

When read out loud, the total of all Orange Envelopes is as follows: four trillion, seven hundred eighty billion, four hundred two million Swedish kronor. The total amounts of the inkomstpension are found in Note 14, Table A, where the change in the pension liability to the economically active is reported. The corresponding amount for the premium pension is found in the income statement for the premium pension.

ORANGE REPORT 2011

in 7 Minutes

The inkomstpension system reports a positive result of SEK 54 billion for 2011. Assets exceed liabilities by some 2 percent, and the balance ratio has been calculated at 1.0198. The reasons for the positive result are that more have paid contributions into the system and that the pension liability has increased less because of a previously lower recalculation of pensions and pension credit..

The premium pension system reports a positive result of SEK 1 billion. The development of value during 2011 was negative, SEK -42 billion, or -10.7 percent. This section will provide a brief presentation of the development during 2011 of the two income-related parts of the national pension - the inkomstpension and the premium pension.

Inkomstpension

The inkomstpension system is a pay-as-you-go system. Pension contributions received are used to pay the pension disbursements of the same year. Surpluses or deficits arising from differences between pension contributions received and pensions disbursed are absorbed by the buffer fund.

The assets of the system are the value of future pension contributions, referred to as the contribution asset, and the buffer fund. The contribution asset is calculated as follows: paid-in pension contributions (smoothed values for the latest three years) are multiplied by the average time that one Swedish krona is expected to remain in the pension system, or the turnover duration of the system.

The pension liability consists partly of the liability to the economically active and partly of the liability to retirees. The pension liability to the economically active is mainly the total of the bottom lines in the pension account statements in all Orange Envelopes. The pension liability to retirees is the sum of the expected pension disbursements to today's retirees for the rest of their lives. The pension liability changes primarily through annual indexation of pensions and the balances of pension accounts. Indexation is determined by the change in the average income in Sweden, in combination with the balance ratio in years when balancing is activated.

The result is affected by numerous macroeconomic and demographic factors. Normally the principal factor in the short run is growth in employment, but the effects of stock and bond markets on the buffer fund is also signi-

ficant, particularly in case of major changes. In the long run, demographic factors matter most.

The balance ratio is a measure of the financial position of the system and is calculated as system assets divided by the pension liability. But since the balance ratio is based on the accounts for 2008, the value of the buffer fund is calculated as the average market value of the fund on December 31 of the latest three years. If the balance ratio is less than 1.0000, that is, if the liabilities of the pension system exceed its assets, so-called balancing is activated to restore long-run balance in the system. Balancing is a part of indexation and means that indexation of pensions and pension balances is reduced. The pension liability is then revalued at a slower rate, and the pension system is strengthened financially. The rate of indexation remains lower until the system has regained financial balance. Any surpluses arising after balancing has been activated are used directly to increase indexation to the extent possible and thus to restore the value of pensions.

The result for 2011 was SEK 54 billion. With the pension system's capital surplus of SEK 103 in 2010, the total capital surplus was SEK 157 billion at the end of 2011. The explanation for the positive result is that assets increased somewhat more than liabilities in 2011. Assets exceed liabilities by 2.1 percent. The balance ratio of the system has been calculated at 1.0198. The balance ratio will affect recalculation of pension balances and pension disbursements in 2013.

Assets in 2011 increased during 2011 by 3.1 percent. Contribution assets increased by SEK 253 billion, or

3.9 percent, owing to higher earnings and other pension-qualifying income. Turnover duration, slowed, however, reducing the total increase in the contribution asset. The buffer fund, that is, the First-Fourth and Sixth National Pension Funds, decreased by SEK 22 billion, or -2.5 percent. The return was SEK - 17 billion, or - 1.8 percent in relation to the opening value of the fund. Like 2010, 2011 was a year when expenditure, pension disbursements and costs of administration exceeded paid-in pension contributions to the inkomstpension system. The difference accounted for a negative contribution of SEK 6 billion.

In total, the assets of the inkomstpension increased by SEK 231 billion, or 3.1 percent.

The pension liability 2011 increased during the year by SEK 177 billion, or 2.4 percent. The recalculation of the liability - indexation after balancing - increased the liability to the economically active by SEK 240 billion, whereas the recalculation of the liability to pensioners resulted in a decrease of more than SEK 65 billion. In total this entailed an increase of SEK 175 billion in the pension liability. Pension disbursements for the year exceeded national and supplementary pension credit earned during the year, including certain adjustments, contributing to a decrease of SEK 12 billion in the liability. The liability to pensioners is affected by the change in life expectancy. Compared to 2010, the average pay-out duration for a 65-year-old (economic life expectancy) has increased by 24 days. Because of the longer pay-out duration, the liability has grown by SEK 14 billion.

Six-Year Review						
Billions of SEK						
	2011	2010	2009	2008	2007	2006
Buffer fund, mean value	865	810	811	821		
Buffer fund	873	895	827	707	898	858
Contribution asset	6,828	6,575	6,362	6,477	6,116	5,945
Total assets	7,700	7,469	7,189	7,184	7,014	6,803
Pension liability	7,543	7,367	7,512	7,428	6,996	6,703
Results brought forward	157	103	-323	-243	18	100
Balance ratio	1.0198	1.0024	0.9549	0.9826	1.0026	1.0149
Financial position*	1.0208	1.0140	0.9570	0.9672		

* The balance ratio according to the previous definition (through 2008), that is, it is calculated solely on the basis of the market value of the buffer funds as of December 31 of the respective year.

In 2008 and 2009 the balance ratio was less than 1.0000. It is estimated that the balance ratio will exceed 1 for 2010 and 2011. The balance ratio for 2011 has been calculated at 1.0198 and will increase indexation by 1.98 percent at the turn of the year 2012/2013.

The sensitivity analysis in the table shows the effect on the balance ratio if one base is changed while all other bases are assumed to remain the same.

How is the Balance Ratio Affected by Changes in the Bases for its Calculation?

Type of base	Change in base	Change in balance ratio
Contribution base	+1 %	+0.6 %
Return on fund	+10 percentage points	+0.4 %
Retirement age	+1 year	+2 %

Premium Pension

The premium pension system is a funded system where pension savers themselves choose the funds in which their premium pension moneys will be invested. The premium pension is disbursed from the proceeds of selling off accumulated capital. The assets of the system consist of investments by pension savers in funds. With fund insurance, the pension liability to the economically active and to retirees is linked primarily to the value of fund shares. Changes in the value of fund shares result in direct and equal changes in the system assets of pension savers. With conventional insurance, the pension liability is the value of the remaining guaranteed disbursements. That value is calculated on assumptions about future return, life expectancy and operating expenses. In the premium pension system, all payments into and out of the system and all changes in value have the same effect, in principle, on the assets and liabilities of the system. Consequently, the system's result each year should in principle be SEK zero. The main reason why the result deviates from this principle is the element of conventional life insurance.

The pension credit earned by pension savers is invested in December following the year in which it is earned. The fund holdings of pensioners are increased by the new pension credit before the annual recalculation of pensions to be disbursed, with a consequent effect on pension disbursements for coming years.

The result for 2011 was SEK 1,080 million. In addition to a positive outcome of SEK 104 million from fund operations, the result has been affected by SEK 836 million from conventional insurance operations, SEK 119 million from trading in fund shares via the trading inventory and net interest of SEK -41 million.

The principal reasons for the year's positive result in conventional insurance are a larger number of pensioners choosing conventional insurance and a positive return on capital due to declining long-term interest rates

The year's result for trading in fund shares via the trading inventory increased because of a mass automatic change of funds in the premium pension system. This contributed to a positive net foreign-exchange gain, as there was a substantial outflow from funds listed in foreign currency to funds listed in Swedish currency, where the foreign currencies strengthened against the krona. The increase in net interest is due also to a large volume of trading just before the mass changes of funds were suspended automatically, increasing the need for credit in fund trading.

Assets in 2011 decreased during the year by SEK -10 billion. The decrease consists of SEK 32 billion in new pension credit, a decrease of SEK -42 billion in funded capital, an allocation of SEK 2 billion in costs of administration and pension disbursements of SEK -2 billion. The development of value for fund insurance during the year was -10.7 percent. The average capital-weighted return of the premium pension system has been 2.4 percent per year ever since the first payments into the system were made in 1995.

The pension liability in 2011 decreased by SEK 10 billion. The change in the pension liability refers in principle to the same factors as noted above: new pension credit earned, a negative change in value, allocated costs of administration and disbursements of pensions.

Six-Year Review

Millions of SEK

	2011	2010	2009	2008	2007	2006
Fund insurance	394,468	409,640	341,371	231,600	309,423	268,708
Conventional insurance	8,870	4,953	2,212	1,733	1,288	739
Other assets	30,191	28,652	27,584	28,180	26,313	24,520
Total insurance assets	433,529	414,593	343,583	233,333	310,711	269,447
Pension liability	431,144	412,924	342,914	233,082	310,326	269,447
Result for the year	1,018	1,249	547	-100	318	56

Note: Historical figures, for 2010 and before, have been adjusted as a consequence of new accounting standards.

The value of pension savers' premium pension assets as of December 31, 2011, was SEK 431,144 million. The change in value during 2010 was -10.7 percent.

The Income-Related Old-Age Pension System, Income Statement and Balance Sheet

For references to notes, see the respective income statements and balance sheets of the inkomstpension and premium pension systems.

Inkomstpension and premium pension

Income Statement, millions of SEK

Change in fund assets	2011	2010	Change
Pension contributions	250,246	237,912	12,334
Pension disbursements	-221,588	-221,568	-20
Return on funded capital	-58,221	127,280	-185,501
Administrative costs	-1,899	-2,188	289
Total	-31,462	141,436	-172,898
Change in contribution asset			
Value of change:			
Value of change in contribution revenue	255,102	232,117	22,985
Value of change in turnover duration	-1,945	-19,427	17,482
Total	253,157	212,690	40,467
Change in pension liability*			
New pension credit and ATP points	-241,909	-247,553	5,644
Pension disbursements	221,581	221,563	18
Indexation/change in value	-132,047	123,556	-255,603
Value of change in life expectancy	-14,034	-25,333	11,299
Inheritance gains arising	11,516	12,140	-624
Inheritance gains distributed	-13,383	-13,716	333
Deduction for administrative costs	1,916	1,950	-34
Total	-166,360	72,607	-238,967
Net income/-loss for the year	55,335	426,733	-371,398

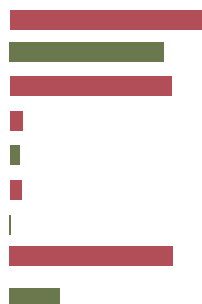
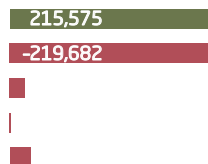
* A negative item (-) increases the pension liability, and a positive item () decreases it, by the amount shown.

Balance Sheet, millions of SEK

Assets	12/31 2011	12/31 2010	Change
Fund assets	872,593	894,881	-22,288
Insurance assets	433,529	443,245	-9,716
Other assets	2,552	2,560	-8
Contribution asset	6,827,772	6,574,615	253,157
Total assets	8,136,446	7,915,301	221,145
Liabilities and results brought forward			
Opening results brought forward*	103,116	-323,501	426,617
Net income/-loss for the year	55,335	426,733	-371,398
Closing results brought forward	158,451	103,232	55,219
Pension liability	7,974,406	7,808,286	166,120
Other liabilities	3,589	3,783	-194
Total liabilities and results brought forward	8,136,446	7,915,301	221,145

* Opening results brought forward differs from Closing results brought forward last year, see Note 24.

Inkomstpension, Income Statement and Balance Sheet

SEK 100 billion
|+++++++|

Income Statement, millions of SEK

	Note	2011	2010	Change
Change in fund assets				
Pension contributions	1	215,575	205,068	10,507
Pension disbursements	2	-219,682	-220,203	521
Return on funded capital	3	-16,537	84,796	-101,333
Administrative costs	4	-1,644	-1,849	205
Total		-22,288	67,812	-90,100
Change in contribution asset				
Value of change:				
Value of change in contribution revenue	5	255,102	232,117	22,985
Value of change in turnover duration	6	-1,945	-19,427	17,482
Total		253,157	212,690	40,467
Change in pension liability*				
New pension credit and ATP points	7	-207,238	-214,709	7,471
Pension disbursements	2	219,675	220,198	-523
Indexation	8	-174,567	164,998	-339,565
Value of change in life expectancy	9	-14,034	-25,333	11,299
Inheritance gains arising	10	10,624	11,470	-846
Inheritance gains distributed	10	-12,491	-13,046	555
Deduction for administrative costs	11	1,479	1,404	75
Total		-176,552	144,982	-321,534
Net income/-loss for the year		54,317	425,484	-371,167

* A negative item (-) increases the pension liability, and a positive item () decreases it, by the amount shown.

SEK 1000 billion
|+++++++|

Balance Sheet, millions of SEK

	Note	12/31 2011	12/31 2010	Change
Assets				
Fund assets	12	872,593	894,881	-22,288
Contribution asset	13	6,827,772	6,574,615	253,157
Total assets		7,700,365	7,469,496	230,869
Liabilities and results brought forward				
Opening results brought forward		102,786	-322,698	425,484
Net income/-loss for the year		54,317	425,484	-371,167
Closing results brought forward		157,103	102,786	54,317
Pension liability	14	7,543,262	7,366,710	176,552
Total liabilities and results brought forward		7,700,365	7,469,496	230,869

Premium Pension, Income Statement and Balance Sheet

SEK 100 billion
|++++++|



Income Statement, millions of SEK

	Note	2011	2010	Change
Change in fund assets				
Pension contributions	1	34,671	32,844	1,827
Pension disbursements	15	-1,906	-1,365	-541
Return on funded capital	16	-41,684	42,484	-84,168
Administrative costs	17	-255	-339	84
Total		-9,174	73,624	-82,798
Change in pension liability*				
New pension credit	18	-34,671	-32,844	-1,827
Pension disbursements	15	1,906	1,365	541
Change in value	19	42,520	-41,442	83,962
Inheritance gains arising	20	892	670	222
Inheritance gains distributed	20	-892	-670	-222
Deduction for administrative costs	21	437	546	-109
Total		10,192	-72,375	82,567
Net income/-loss for the year		1,018	1,249	-231

* A negative item (-) increases the pension liability, and a positive item () decreases it, by the amount shown.

SEK 1000 billion
|++++++|



Balance Sheet, millions of SEK

	Note	12/31 2011	12//31 2010	Change
Assets				
Insurance assets	22	433,529	443,245	-9,716
Other assets	23	2,552	2,560	-8
Total assets		436,081	445,805	-9,724
Liabilities and results brought forward				
Opening results brought forward	24	330	-803	1,133
Net income/-loss for the year		1,018	1,249	-231
Closing results brought forward		1,348	446	902
Pension liability	25	431,144	441,576	-10,432
Other liabilities	26	3,589	3,783	-194
Total liabilities		434,733	445,359	-10,626
Total liabilities and results brought forward		436,081	445,805	-9,724

Accounting Principles

To a large degree, the assets and liabilities of the inkomstpension are valued solely on the basis of events and transactions that are verifiable at the time of valuation. The calculation of the so-called contribution asset follows principles developed especially for a primarily unfunded pension system.

Regulations and Guidelines

The Annual Report of the Pension System has been prepared in accordance with Chapter 55 § 4 of the Social Insurance Code (2010:110) on the Earnings Related Old Age Pension (SFB). The income-related old-age pension system includes the benefits provided by the inkomstpension, the ATP and the premium pension.²⁰

The inkomstpension and the ATP are examples of benefits in a pay-as-you-go pension system. In such systems, contributions are not funded, but in principle are used directly to finance pension disbursements. The National Pension Funds are buffer funds that absorb differences between the inflow of contributions and the outflow of pensions. As elsewhere in the accounts, the term “inkomstpension” is used here in reference to the entire pay-as-you-go system; in other words, it often applies to the ATP as well. According to Chapter 58 § 14 (SFB), the reported assets of the pay-as-you-go system consist of the contribution asset and the value of the assets of the First–Fourth and Sixth National Pension Funds. Formulas for calculating the contribution asset and the pension liability of the inkomstpension system are provided in the Regulations for Calculation of the Balance Ratio (2002:780). These formulas are also found in Appendix B.

The premium pension system is a fully funded pension system where contributions are invested and the accumulated capital is sold off to pay pensions.

According to the Regulations for the Annual Report (2002:135), the Report is to include a projection of the assumed long-term development of the pension system. See the section “Three Scenarios for the Future of the Pension System”.

The accounting principles of the National Pension Funds are set forth in their annual reports and they are therefore not described in this Report. The annual report of each national pension fund is available on the home page of the respective fund: www.ap1.se, www.ap2.se, www.ap3.se, www.ap4.se and www.ap6.se. As the annual report of the Pensions Agency describes the accounting principles used for the premium pension, these are only presented in summary form in this Report. For further information, see www.pensionsmyndigheten.se

Where Do the Figures Come From?

The accounting for the inkomstpension system is based on data from the records of the Swedish Pensions Agency on pension credit earned and pension disbursements.

In the Annual Report of the Pension System, information on the operations of the First–Fourth and Sixth National Pension Funds has been taken primarily from the annual reports of the respective funds.²¹ The buffer funds prepare their own reports according to the Law on National Pension Funds (2000:192). On the basis of current provisions for comparable financial companies, the funds have also developed common principles for accounting and valuation.

In the Annual Report of the Pension System, information on the premium pension has been presented in accordance with the annual report of the Pensions Agency, which was prepared as provided in Regulation (2000:605) on Annual Reports and Supporting Documentation for Budgeting. Invested assets (and the corresponding liabilities) of the premium pension system have been valued according to the provisions of the Law (1995:1560) on Annual Reports of Insurance Companies and according to the regulations and general guidelines of

²⁰ The guaranteed pension, which is part of the national pension system, is not based on earnings and is therefore not included in the accounts.

²¹ The accounting for the financial position of the inkomstpension system in the Pension Agency's annual report for 2011 is based on preliminary data for the operations of the National Pension Funds. There are minor discrepancies compared with subsequently revised and confirmed data.

the Swedish Financial Supervisory Authority for Annual Reports of Insurance Companies. The assets and liabilities of the Premium Pension System are included in the consolidated balance sheet of the Pensions Agency, and the operations of the premium pension system are reported in a separate section of the income statement. Certain items have been adjusted, simplified or combined in order to make the presentation more comparable with that of the inkomstpension.

The reporting of pension contributions in the income statement of the premium pension has been changed so that it covers the same pay-in period as the inkomstpension. In previous annual reports pension contributions have been based on confirmed pension credit, which has thus been reported one year later than the paid-in pension contributions.

An additional change has been implemented in regard to the accounting for the temporary management in the balance sheet. Temporary management was previously reported like other assets and other liabilities, but from 2011 on it will be included in insurance assets and the pension liability. Temporary management refers to paid-in pension contributions including interest for the period during which they are managed before being transferred to the funds of the insured.

The accounting for a share in the Swedish Pensions Agency's joint assets, liabilities and result has been simplified by reporting a net amount. The net amount, which refers to other operations of the Pensions Agency, is included so that the balance sheet will balance. In view of the accounting changes, the comparison figures affected have been recalculated

Principles for Valuation of Assets and Liabilities

In general, the assets and liabilities of the inkomstpension system are valued only on the basis of events and transactions that are verifiable at the time of valuation. For example, the assumption that contribution revenue normally changes at the rate of economic growth is not considered in the calculation of the contribution asset. Nor does the valuation of the pension liability take into account the assumption that pension disbursements, because of factors like indexation, will change in the future. The reason why assets and liabilities are valued without regard to future factors is that the financial position of the system is determined exclusively by the relationship of assets to liabilities, that is, the so-called balance ratio.

In the design of the inkomstpension, there is a strong link between the development of system assets and the development of system liabilities. When balancing is activated, there is in principle an absolute link between the respective rates of change in liabilities and assets.²²

In the valuation of the assets and liabilities of the inkomstpension system, it is assumed that these will change at the same rate after each valuation. To put it another way, it is assumed in the method of valuation that the future internal rate of return of the system will be the same as the future change in the pension liability, even though this outcome is certain only if balancing has been activated. When balancing has not been activated, the internal rate of return may be either greater or less than the change in the value of the pension liability.

The valuation of the contribution flow and of the pension liability is based almost exclusively on conditions prevailing at the time of valuation. This is not due to any belief that all these factors will remain totally constant; rather, the accounting is designed not to include changed conditions until these are reflected in the events and transactions on which the accounts are based.

Valuation of Inkomstpension Assets

The basis for valuation of the contribution asset is the size of the pension liability that the contribution revenue for the accounting year – i.e. paid-in pension contributions – could finance if the conditions prevailing at the time of valuation remained constant. The relevant determinants, in addition to the rules of the pension system, are economic and demographic. The economic determinants

²² In the method for calculating turnover duration, there is an implicit assumption that the size of the economically active population will remain constant. If the population decreases, there is thus a risk that the accounts will (slightly) overstate the system's assets in relation to its liabilities. It is reasonable, however, to assume that the population will cease declining at some point. If so, the underestimate, and the possible deficit in the buffer fund that may result, will be temporary. The buffer fund will in time return to a level of at least SEK zero.

are the average pension-qualifying income of each annual birth cohort and the sum of these incomes. The demographic determinants relate to mortality at different ages. The relevant rules for the pension system are those that govern the calculation and the indexation of the inkomstpension, define the contribution and pension base and determine the contribution in percent.

The contribution asset is calculated in principle by multiplication of the contribution revenue for the accounting year by the turnover duration for the same year.²³ Turnover duration expresses the expected average length of time between the payment of a monetary unit of contribution into the system and the disbursement of the corresponding pension credit in the form of a pension. Thus, turnover duration reflects the difference in age between the average contributor and the average pensioner that would result if economic, demographic and legal conditions were constant.

To state that the valuation of the contribution inflow is derived through multiplication of the year's inflow by turnover duration is equivalent to holding that this value is based on a supposedly permanent inflow of contributions, with the inflow each year equal to the contributions of the preceding year, discounted at a rate equal to one (1) divided by turnover duration. If turnover duration goes up, the rate of discount decreases and the value of the contribution flow increases. If turnover duration goes down, the rate of discount increases and the value of the contribution flow decreases.

To limit variation in the balance ratio – that is, to reduce fluctuation in the annual result of the pension system – the contribution flow used in the calculation of the contribution asset is smoothed. The method of smoothing is the same as in the calculation of the income index. Since the latter has a substantial impact on the development of the pension liability and thus on the denominator of the balance ratio, it is important that the contribution flow in the numerator of the balance ratio also follow the smoothing of the income index. To achieve this smoothing, the average contribution of the past three years is calculated, then indexed by the annual percentage change in the contribution flow for the last three years, after eliminating the change in consumer prices during the same period. Thereafter, the change in consumer prices in the latest year is added back. Moreover, and also to reduce the variation in the balance ratio, the median turnover duration for the latest three years is used in calculating the contribution asset.

The assets of the National Pension Funds are assessed at their so-called true value. This means that assets are valued preferably at their latest price paid, if any, on the last trading day of the year, otherwise at the latest price bid. In order to reduce the variation, the mean value of the assets of the National Pension Funds for the latest three years has been used in calculating the balance ratio.

Valuation of Inkomstpension Liabilities

The inkomstpension liability to persons who have not yet begun to draw an old-age pension is valued as the sum of the pension balances of all insured persons. Income earned in the year covered by the accounts has not yet been confirmed at the time of the report. For this reason, an estimate of the inkomstpension credit earned in the year of the report is added to the sum of the pension balances of the insured. This added amount equals less than three percent of the total pension liability. The difference between estimated and confirmed pension credit is deducted in the accounts for the following year.²⁴

The pension liability to retirees is calculated through multiplication of pensions granted (annual amount) by the expected number of years for which the pension amount will be disbursed. The number of years is discounted in order to reflect the indexation of disbursed amounts by the increase in the income index or balance index less 1.6 percentage points. The expected number of pay-out years is calculated from measurements of the pay-out period of pension amounts according to Swedish Pensions Agency records, and is expressed in terms of so-

²³ The calculation of turnover duration is described in Appendix B, Formula 3.

²⁴ See Note 14, Table A.

called economic annuity divisors.²⁵ In economic annuity divisors, consideration is given to any correlation between size of pensions and pay-out period.

One accounting principle followed is that the report is based only on events or transactions occurring and recorded. Since credit for the ATP will be earned through 2017, this accounting principle cannot yet be fully applied. The reason is that the ATP liability to persons who have not yet begun to receive their pensions cannot be determined without making assumptions about future economic and demographic developments. According to the Regulation (2002:135) for the Annual Report, the ATP liability for the economically active is therefore to be calculated on the basis of certain assumptions about future developments. That liability is to be calculated according to the principles set forth by the Government in Bill 2000/01:70 on Automatic Balancing in the Old Age Pension System. These principles provide that the liability to the economically active is to be calculated on the assumptions of the same life expectancy used in determining the inkomstpension liability and of two-percent annual growth in the income index.

On these conditions, the ATP liability as of December 31 of the year covered by the financial statements is calculated by estimating the ATP to be received at age 65 by each annual cohort. This amount is multiplied by the established annuity divisor of the accounting year for persons aged 65. It is assumed that persons older than 65 who have not yet drawn their full pension at the time of calculation will do so in the following year. The present value of the future pension amounts is then calculated through discounting it by the assumed annual change of two percent in the income index from the year of retirement until the year of the accounts. That amount is reduced by the similarly discounted value of the expected contribution inflow of individuals until age 64. Pension credit for income earned after that age is calculated entirely according to the provisions for the inkomstpension.

Valuation of Premium Pension Assets and Liabilities

Premium pension assets are reported at their true value, or accrued acquisition cost, according to the regulations and general guidelines of the Swedish Financial Supervisory Authority (FFFS 2009:12) on annual reports of insurance companies. Assets reported at their true value as of the balance sheet date are valued at their price on the last trading day of the year. In the valuation of assets reported at accrued acquisition cost, the difference between acquisition cost and redemption price is periodized as interest revenue for the time remaining to maturity.

Fund insurance assets consist of the investments of pension savers in funds and are valued at the redemption price for fund shares.

With fund insurance, the pension liability consists of fund insurance assets and of liquid assets not yet converted into fund shares.

With conventional insurance, holdings are invested in various assets and reported at their true value.

The pension liability for conventional insurance is determined for each insurance policy as the capital value of the remaining guaranteed disbursements. The value is calculated on assumptions about future returns, life expectancy and operating expenses. The return is determined by the market rates of interest on government bonds of varying maturities. The market rate of interest is determined on the basis of the time remaining to maturity for guaranteed disbursements. The market valuation of the liability means that provisions set aside for life insurance are affected by changes in interest rates. Paid-in premiums are reported as lump-sum premiums and increase the guaranteed amount. Assumptions about life spans are based on the population forecast of Statistics Sweden from 2010. Operating expenses are assumed to be 0.1 percent of the insurance capital. In total, this means that the guarantees in conventional insurance have been satisfactorily valued in accordance with generally accepted actuarial methods.

²⁵ See Formula 4.3 in Appendix B.

Notes and Comments

Notes 2–14 relate to the inkomstpension, Notes 15–26 to the premium pension. Note 1 applies to both parts of the income-related national pension system. All amounts are shown in millions of SEK.

Note 1 Pension Contributions

Contributions to the National Pension, 2010-2011, millions of SEK

Contributions to:	Inkomstpension		Premium pension	
	2011	2010	2011	2010
Employer contributions on income up to ceiling	97,152	91,844	27,702	25,909
Contributions for the self-employed on income up to ceiling	3,319	2,647	944	747
General pension contribution	93,196	86,171	-	-
Central government old-age pension contribution	20,771	23,112	3,381	3,794
Final settlements etc.	1,137	1,294	2,644	2,394
Total	215,575	205,068	34,671	32,844

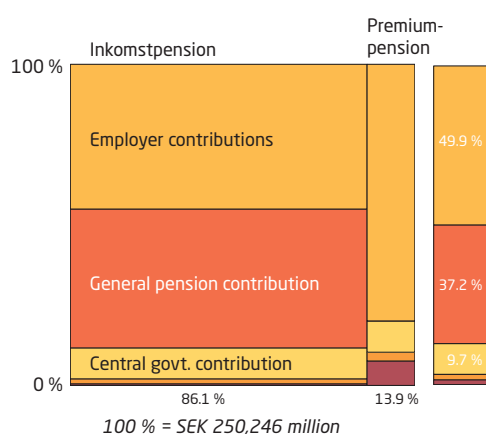
As shown in the table above, there are several different types of contributions in the national pension system. Not all contribution revenue goes to the pension system; contributions for incomes above the so-called income ceiling of 8.07 income-related base amounts are transferred to the central government budget. These contributions, which are actually taxes, are not included in the table. Contributions to the old-age pension are paid by employers and self-employed persons, the general pension contribution by all economically active persons earning pension credit. In addition, from various appropriations in the central government budget, the central government pays old-age pension contributions for pension credit arising from certain transfer payments, such as those for sickness and unemployment cash benefits. The central government also pays a pension contribution for so-called pension-qualifying amounts, for years with small children and for study, for example.

Contribution revenue increased between 2010 and 2011. The reason is that total earnings rose substantially between these two years. On the other hand, central government old-age-pension contributions decreased. The contribution revenue of the inkomstpension system was up by 5.1 percent, whereas total earnings rose by approximately 5.8 percent, according to the National Institute of Economic Research. Contributions to the premium pension system increased by 5.6 percent between 2010 and 2011.

More Detailed Accounting for Pension Contributions

Table A shows pension contributions recorded in 2011 by the Swedish Social Insurance Agency or the Swedish Pensions Agency. For 2010 and 2011 employer contributions and individual social security contributions were recorded in the accounts of the Swedish Social Insurance Agency before being transferred to the National Pension Funds and the premium pension system, respectively. Of the contributions recorded in a particular year, a portion applies to the preceding year or, in some cases, to one or more years further back. Employer contributions, for example, are recorded at least one month after payment of the corresponding wages and salaries.

The general pension contribution is allocated entirely to the National Pension Funds. For employer contributions and contributions for the self-employed, there is a preliminary allocation by set percentages among



the National Pension Funds, the premium pension system and the central government budget. The central government old-age pension contribution is preliminarily allocated by set percentages between the National Pension Funds and the premium pension system.

The share of the old-age pension contribution allocated to the central government budget is for the portion of income that exceeds the ceiling for pension-qualifying income. This ceiling is 8.07 income-related base amounts before deduction of the general pension contribution and 7.5 after this deduction.²⁶ Since these contributions do not represent pension credit, they are in fact taxes.

²⁶ The income related base amount for 2011 was SEK 52,100. This base amount multiplied by 8.07 is SEK 420,447; Multiplied by 7.5 it is SEK 390,750.

Table A Pension Contributions by Type, 2011

Contributions to:	Inkomst-pension	Premium pension	Central govt. budget (tax)	Total	of which contrib. to national pension
Employer contributions	97,152	27,702	14,738	139,592	124,854
Contributions for the self-employed	3,319	944	511	4,774	4,263
General pension contribution	93,196	-	-	93,196	93,196
Central govt. old-age pension contribution	20,771	3,381	-	24,152	24,152
Total excluding settlements etc.*	214,438	32,027	15,249	261,714	246,465
Final settlements in 2010 for 2008	1,408	-112	-1,296	0	1,296
Collection loss, settlement	-325	-	-	-325	-325
Adjustment to accounting of National Pension Funds and premium pension system, respectively	54	2,756	-	2,810	2,810
Total	215,575	34,671	13,953	264,199	250,246

* Contributions received by the Swedish Social Insurance Agency/the Swedish Pensions Agency in 2011 and transferred to the National Pension Funds, the premium pension system and the central government budget, respectively.

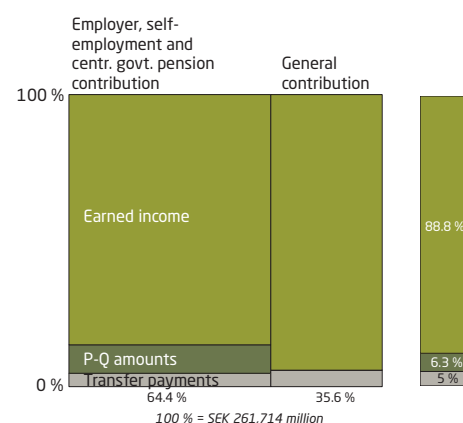
To ensure that the premium pension system has received contributions corresponding to the pension credit earned for a particular year and that the central government budget has received contributions for the portion of incomes above the contribution ceiling, the discrepancies are reconciled two years later. Thereafter, a settlement is made among the central government budget, the premium pension system and the National Pension Funds.

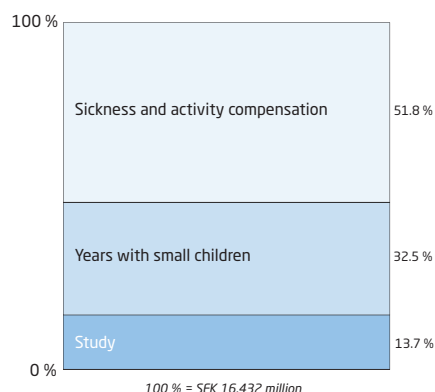
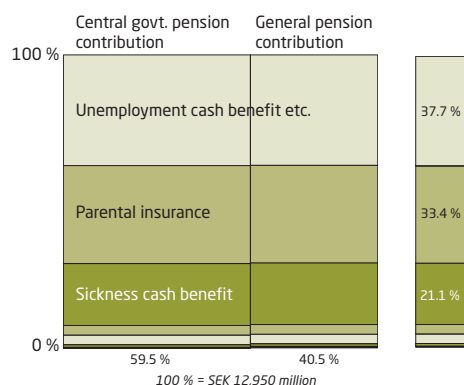
The discrepancy between the accounting of contribution revenue of the Swedish Social Insurance Agency/the Swedish Pensions Agency and that of the National Pension Funds (SEK 54 million) is due primarily to differences in regard to periodization. The explanation for the difference between the accounting of contribution revenue of the Swedish Social Insurance Agency/the Swedish Pensions Agency and that of the premium pension system (SEK 2,756 million) is explained partly by the inclusion of allocated costs of administration and certain adjustments in the amount for the premium pension system (compare Note 18).

Table B Pension Contributions, Excluding Settlements etc. Allocated by Type of Contribution Base, 2011, millions of SEK

	Employer, self-employed and centr. govt. pension contribution	General pension contribution	Total
Earned income*	144,366	87,936	232,302
Transfer payments, see Table C	7,720	5,260	12,980
Pension-qualifying amounts, see Table D	16,432	-	16,432
Total	168,518	93,196	261,714

* Including sickness pay and self-employment income, excluding transfer payments. The allocation of the general pension contribution between the two types of contribution base is estimated and is not shown in the accounting systems





The general pension contribution is 7 percent of the sum of earned income and pension-qualifying transfer payments such as sickness cash benefits, but not including sickness and activity compensation. The general pension contribution is assessed only on the portion of such income below the ceiling of 8.07 income-related base amounts.

The pension contribution paid by employers and self-employed persons on earned income, and by the central government on the above-mentioned transfer payments, is 10.21 percent. The central-government pension contribution on sickness and activity compensation and on so-called pension-qualifying amounts, which are not subject to the general pension contribution, is 18.5 percent.

The allocation in Table B refers to the contributions received by the Swedish Social Insurance Agency or the Swedish Pensions Agency in 2011.

Table C Pension Contributions for Transfer Payments, 2011, millions of SEK

	Cent. govt. pension contrib.	General pension contrib.	Total
Sickness cash benefit	1,632	1,108	2,740
Rehabilitation cash benefit	67	46	113
Allowance for care of close relatives	13	9	22
Work injury compensation, etc.	254	173	427
Parental insurance	2,917	1,981	4,898
Care allowance	252	171	423
Unemployment cash benefit etc.	2,581	1,752	4,333
Educational allowance	0	18	18
Artists' Board	3	2	5
Allowance to disease carriers	1	0	1
Total	7,720	5,260	12,980

The allocation of the general pension contribution among the different types of transfer payments is estimated and is not shown in the accounting systems.

Table D Pension Contributions Paid for Sickness/Activity Compensation and Pension-Qualifying Amounts, 2011, millions of SEK

Sickness and activity compensation*	8,514
Amounts credited for years with small children	5,345
Amounts credited for study**	2,573
Amounts credited for compulsory national service	0
Total	16,432

* Amount refers to contributions for disbursements of both pension-qualifying benefits and pension-qualifying amounts. In both cases the contribution is 18.5 percent.

** A minor portion of amounts credited for study and compulsory national service consists of pension-qualifying income.

Note 2 Pension Disbursements etc.

Supplementary pension and inkomstpension disbursements and amounts transferred to the European Community, millions of SEK

	2011	2010
ATP	174,879	182,436
Inkomstpension	44,796	37,762
Total pension disbursements	219,675	220,198
Transfers to European Communities	7	5
Total	219,682	220,203

In 2011 a total of SEK 219,675 million in pensions was disbursed from the National Pension Funds, thus reducing the pension liability to retired persons.

According to the Act (2002:125) on Transfer of Pension Credit to and from the European Communities (EC), the value of pension credit for EC officials can be transferred from the National Pension Funds and the premium pension system to the service pension system of the EC. In 2011 the sum of almost SEK 7 million was thus transferred from the National Pension Funds, reducing the pension liability to the economically active. In total, the National Pension Funds were charged with SEK 219,682 million as a result of pension disbursements or transfer of pension credit.

Note 3 Return on Funded Capital

Return on funded capital of the First-Fourth and Sixth National Pension Funds, millions of SEK

National Pension Fund:	First	Second	Third	Fourth	Sixth	Total 2011	Total 2010
Stocks and shares	-13,080	-10,540	-10,109	-7,985	-1,520	-43,234	79,846
<i>of which:</i>							
<i>Dividends received</i>	3,415	2,976	3,338	3,200	87	13,016	11,018
<i>Gain/-loss, listed and unlisted stocks and shares, net</i>	-16,495	-13,516	-13,447	-11,185	-1,607	-56,250	68,828
Bonds and other interest-bearing securities	8,305	4,999	4,431	6,686	226	24,647	14,748
<i>of which:</i>							
<i>Net interest</i>	3,727	2,997	2,430	2,838	226	12,218	11,191
<i>Gain/-loss, interest bearing assets, net</i>	4,578	2,002	2,001	3,848	0	12,429	3,557
Other investments	821	1,265	439	-95	57	2,487	-9,321
<i>of which:</i>							
<i>Gain/-loss, derivatives, net</i>	-2,143	1,836	892	-2,679	0	-2,094	2,013
<i>Net foreign-exchange gain/-loss</i>	2,964	-571	-453	2,584	57	4,581	-11,334
Costs of commissions	-114	-210	-89	-24	0	-437	-477
Total	-4,068	-4,486	-5,328	-1,418	-1,237	-16,537	84,796

Source: Annual reports of the First, Second, Third, Fourth, and Sixth National Pension Funds, 2009 and 2010.

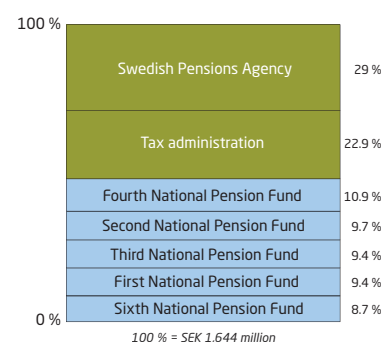
The item of Gain/-loss, derivatives, net now includes all derivatives; for this reason, there has been an adjustment of net interest under Bonds and other interest-bearing securities,

The item of Costs of commissions consists of non-result-based charges. Result-based charges, brokerage fees and other expenses have reduced the return earned (see the Costs of Administration and Capital Management).

Note 4 Costs of Administration

	2011	2010
Swedish Pensions Agency	476	627
Tax administration and other agencies*	377	402
Total costs of insurance administration	853	1 029
First National Pension Fund	155	163
Second National Pension Fund	159	160
Third National Pension Fund	155	154
Fourth National Pension Fund	179	176
Sixth National Pension Fund	143	167
Total costs, fund administration	791	820
Total	1,644	1,849

* Includes Enforcement Service and the National Institute of Economic Research (NIER).



For the First–Fourth National Pension Funds, only internal administrative costs are reported. External costs of administration and custodial fees are referred to as costs of commissions and are reported as negative revenue (see Note 3). The costs of administration for the Sixth National Pension Fund also include certain external costs of administration. For all funds, result-based charges, transaction costs etc. have reduced the return shown in Note 3 (see the section Costs of Administration and Capital Management).

Owing to phase-in provisions applicable until 2020, only a portion of administrative costs (80 percent in 2011, see Note 11) is charged to the pension balances of the insured. Each fund finances its own costs of administration by withdrawals from itself.

Note 5 Value of Change in Contribution Revenue

Smoothed value of contribution revenue, millions of SEK

	2011	2010
Smoothed contribution revenue 2011	215,676	-
Smoothed contribution revenue 2010	-207,619	207,619
Smoothed contribution revenue 2009	-	-200,300
Change in smoothed contribution revenue	8,057	7,319
(Smoothed turnover duration 2011 + smoothed contribution duration 2010)/2	x 31.66214	-
(Smoothed turnover duration 2010 + smoothed contribution duration 2009)/2	-	x 31.71436
Value of change in contribution revenue	255,102	232,117

Duration in years.

Table A Basis for Calculating Smoothed Value of Contribution Revenue, millions of SEK

	2011	2010	2009	2008
Pension contributions	215,575	205,068	202,712	203,140
Smoothed contribution revenue	215,676	207,619	200,300	203,918
CPI, June	311.28	302.97	300.17	302.45

The method of calculating smoothed contribution revenue is described in Appendix B, Section 1.

Note 6 Value of Change in Turnover Duration

	2011	2010
Smoothed contribution duration 2011	31.65754	-
Smoothed contribution duration 2010	-31.66673	31.66673
Smoothed contribution duration 2009	-	-31.76198
Change in smoothed contribution duration	-0.00919	-0.09525
(Smoothed contribution revenue 2011 + smoothed contribution revenue 2010)/2	x 211,648	-
(Smoothed contribution revenue 2010 + smoothed contribution revenue 2009)/2	-	x 203,960
Value of change in turnover duration, millions of SEK	-1,945	-19,427

Duration in years.

Table A Basis for Calculating Smoothed Turnover Duration

	2011	2010	2009	2008
Pay-in duration	-	20.62228	20.82729	20.88140
Pay-out duration	-	10.88404	10.83025	10.78533
Turnover duration	-	31.50632	31.65754	31.66673
Smoothed turnover duration	31.65754	31.66673	31.76198	31.76449

Duration in years.

Smoothed turnover duration is the median turnover duration for the latest three years. The method of calculating turnover duration is described in Appendix B, Section 3. Since pay-in duration cannot be calculated until all pension credit has been confirmed, the most recent year for which turnover duration can be determined is the year immediately prior to the accounting year.

Note 7 New Pension Credit and ATP Points

The items of New Pension Credit and ATP points have been adjusted upward by certain other amounts that have affected the size of the pension liability. These adjustment amounts are explained in the tables below.

Value of New Pension Credit, etc, millions of SEK

	2011	2010
Estimated inkomstpension credit earned	208,967	196,345
Estimated value of ATP points earned	2,916	7,093
Adjustment amount, new pension credit, see Table A	6,369	6,122
Adjustment amount, new ATP points, see Table B	-11,014	5,149
Total	207,238	214,709

Table A Adjustment Amount, New Pension Credit, 2011, millions of SEK

Confirmed inkomstpension credit earned in 2010	198,756
Estimated inkomstpension credit earned in 2010	-196,345
Adjustments affecting pension balances, etc.	-2,732
Change in amounts disbursed	6,690
Total	6,369

Since the tax assessment for the year of the financial statements has not been completed when the statements are prepared, the amount of pension credit earned during that year can only be estimated. The adjustment represents tax-assessment changes etc. affecting the size of pension balances; see Note 14, Table A. The pension liability to retirees has been changed because of changes in pension disbursements other than indexation (see Note 14, Table C).

Table B Adjustment Amount, New ATP Points, 2011, millions of SEK

Effect of difference between assumed value for 2011 and estimate for 2010, etc.	-12,585
Value of other paid-in pension contributions for ATP*	2,822
Change in amounts disbursed	-1,251
Total	-11,014

* Excluding value of ATP points.

The amounts in Table B above refer to certain changes in the supplementary-pension liability. See Note 14, Tables B and C. Of ATP points earned during one year, only a minor portion will have impact on future pensions. The portion expected to contribute to higher pensions has been reported as the estimated value of ATP points earned in Note 14, Table B. However, all contributions to the ATP pension add to the estimated pension liability. The last year in which ATP points may be earned is 2017. This means that pension contributions, except for administratively caused discrepancies, will not be as great as pension credit earned until 2018.²⁷

²⁷ Paid-in contributions for ATP exceed the value of ATP pension points earned. The explanation for this difference is that in the ATP system, pension credit is often earned relatively early in working life. Individuals aged 55 who are already past their 15 best pay-in years (and who have worked for at least 30 years) cannot increase their ATP pension at all, even if they keep working and paying contributions until age 65. This situation illustrates one of the disincentives of the ATP system for older members of the work force to contribute to the labour supply.

Note 8 Indexation

Indexation, 2010-2011, millions of SEK

	2011			2010		
	Active	Re-tired	Total	Active	Re-tired	Total
Inkomstpension, indexation	214,296	-16,407	197,889	-114,003	-6,919	-120,922
of which <i>Effect of income index</i>	203,831	11,168	214,999	77,603	1,702	79,305
<i>Effect of balance ratio</i>	10,465	-27,575	-17,110	-191,606	-8,621	-200,227
ATP, indexation	25,720	-49,042	-23,322	-18,127	-25,949	-44,076
of which <i>Effect of income index</i>	24,464	33,878	58,342	11,782	6,435	18,217
<i>Effect of balance ratio</i>	1,256	-83,647	-82,391	-29,909	-32,597	-62,506
<i>Effect of price index</i>		728	728		213	213
Total	240,016	-65,449	174,567	-132,130	-32,868	-164,998

The pension liability changes by the change in the income index if balancing is not activated in the system. When balancing is activated, the pension liability changes instead by the balance index (except for the supplementary-pension liability for individuals under 65 years of age). The balance index consists of the inkomstindex multiplied by the current balance ratio. The value of indexation refers to the indexation applied to the pension liability on December 31, 2011. The pension liability to the economically active as of December 2011 obtained a return in accordance with the net change in the balance index from 2011 to 2012, which was 5.2 percent, of which the change in the income index contributed 4.9 percent and the current balance ratio, 0.2 percent.

The pension liability to retirees as of the same date obtained a return equal to the change in the income index and the balance index at the end of the preceding year, 2010, which was -2.7 percent. For those who have drawn a supplementary pension before age 65, the pension liability is indexed by the change in the price-related base amount until they reach age 65.

Note 9 Value of the Change in Life Expectancy

Millions of SEK	2011			2010		
	Active	Retired	Total	Active	Retired	Total
Inkomstpension	-	3,302	3,302	-	4,587	4,587
ATP	1,700	9,032	10,732	3,729	17,017	20,746
Total	1,700	12,334	14,034	3,729	21,604	25,333

As used here, the term "life expectancy" refers to the assumed payout duration of an average pension, or so-called economic life expectancy, which is expressed in terms of an economic annuity divisor. In the calculation of these divisors, consideration is given to a growth norm of 1.6 percent. The method of calculating economic annuity divisors is shown in Appendix B, Section 4.

A higher economic life expectancy will increase the ATP liability, both to the economically active and to retirees. For the inkomstpension system, only the pension liability to retirees increases if life expectancy goes up.

The value of the change in life expectancy is the difference between the pension liability calculated with the economic annuity divisor used in the year of the financial statements, and the pension liability calculated with the economic annuity divisors used in the previous year.

Note 10 Inheritance Gains, Arising and Distributed

Millions of SEK	2011		2010	
	Inheritance gains arising	Inheritance gains distributed	Inheritance gains arising	Inheritance gains distributed
Age				
60 years or older	4,453	6,288	4,763	6,299
Younger than 60 years	6,171*	6,203	6,707*	6,747
Total	10,624	12,491	11,470	13,046

* Died last year, distributed current year.

The pension balances of deceased persons (inheritance gains arising) are distributed to the survivors of the same age. The distribution is made as a percentage increase in pension balances according to an inheritance gain factor.

Until the year when a birth cohort reaches age 60, the inheritance gains distributed are those actually arising. Because of the taxation procedure, allocation lags one year. The inheritance gain factor is thus determined by the total pension balances of decedent persons of the same age. The inheritance gains from persons dying before their 60th year in 2010 (born in 1951 or later) were distributed to the respective birth cohorts in 2011. The difference between inheritance gains arising and inheritance gains distributed is explainable in part by the annual adjustment of pension balances for changes in tax assessments.

Beginning with the year when a birth cohort reaches age 60, the inheritance gains distributed are not those actually arising, but those expected to arise. Inheritance gain factors are estimated on the basis of the mortality observed by Statistics Sweden for an earlier period. Partly because this mortality will not be exactly the same as actual mortality in the year concerned, there is a discrepancy between inheritance gains arising and inheritance gains distributed. For those dying in their 60th year or at an older age in 2011 (born in 1951 or earlier), the inheritance gains are distributed in the same year.

Note 11 Deduction for Costs of Administration

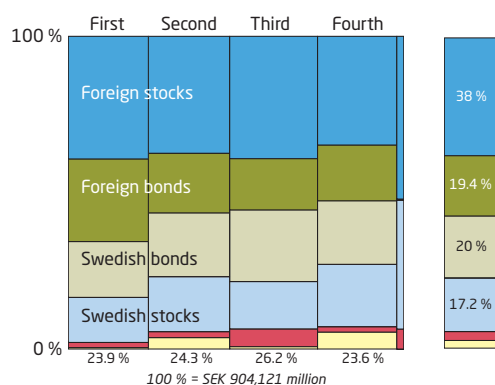
Costs of administration are financed by a percentage deduction from the pension balances of the insured. In order to avoid charging a disproportionately high cost to younger birth cohorts during the period when the ATP is being phased out, this administrative cost deduction is being introduced in steps. In 2011, 80 percent of administrative costs were financed by a deduction from pension balances. This deduction will increase by 2 percentage points each year and thus will not cover 100 percent of administrative costs until 2021.

The calculation of the administrative cost factor is based on budgeted costs of administration, including those of the National Pension Funds, for the current year and the pension balances for the preceding year (see Appendix A). The difference between the monetary amount of the deduction made and the cost subsequently confirmed is considered in the calculation of the administrative cost factor for the following year. The deduction in 2011 was 0.0340 percent and totalled SEK 1,479 million. In 2010 the amount deducted was SEK 1,404 million.

Note 12 Fund Assets

Assets and liabilities of the buffer fund, millions of SEK

National Pension Fund:	First	Second	Third	Fourth	Sixth	2011 Total	2010 Total
Stocks and shares	115,674	120,549	128,433	116,972	17,327	498,955	537,079
of which Swedish	31,063	38,548	35,860	42,683	7,653	155,807	188,211
Foreign	84,611	82,001	92,573	74,289	9,674	343,148	348,868
Bonds and other	95,563	86,613	93,077	81,555	75	356,883	336,451
of which Swedishg issuers	38,543	44,801	54,274	43,446	75	181,139	163,040
Foreign issuers	57,020	41,812	38,803	38,109		175,744	173,411
Derivatives	987	7,993	1,802	11,581		22,363	31,326
Other assets	3,553	4,162	13,380	3,638	1,187	25,920	25,411
Total assets	215,777	219,317	236,692	213,746	18,589	904,121	930,267
Liabilities	-2,459	-2,695	-22,586	-3,747	-41	-31,528	-35,386
of which Derivatives	-1,913	-2,614	-2,774	-3,393		-10,694	-5,458
Others	-546	-81	-19,812	-354	-41	-20,834	-29,928
Total	213,318	216,622	214,106	209,999	18,548	872,593	894,881



The diagram shows the assets of the National Pension Funds.

Other assets include cash and bank balances, prepaid expenses and accrued revenue etc. Liabilities, aside from derivative instruments, include other liabilities, prepaid revenue and accrued expenses.

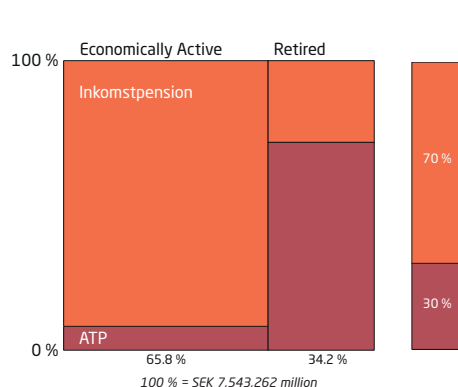
Note 13 Contribution Asset

Millions of SEK	2011	2010
Smoothed contribution revenue	215,676	207,619
Smoothed turnover duration	x 31.65754	x 31.66673
Contribution asset	6,827,772	6,574,615

Duration in years.

See Notes 5–6 and Appendix B for the values and formulas used in calculating smoothed contribution revenue and turnover duration.

Note 14 Pension Liability



	2011			2010		
	Active	Retired	Total	Active	Retired	Total
Inkomstpension	4,555,840	726,827	5,282,667	4,286,921	623,627	4,910,548
ATP	409,316	1,851,279	2,260,595	511,476	1,944,686	2,456,162
Total	4,965,156	2,578,106	7,543,262	4,798,397	2,568,313	7,366,710

The pension liability to retirees for the ATP and the inkomstpension is calculated in the same manner for both. The liability to an annual cohort is calculated as the product of the cohort's pension disbursements in December multiplied by 12 and the cohort's economic life expectancy. The annual amount is then multiplied by the economic life expectancy for each birth cohort; the product is the pension liability to that cohort. The sum of the pension liabilities to all birth cohorts is the total liability to retirees. Economic life expectancy is expressed as an economic annuity divisor. The inkomstpension liability to the economically active consists of the total pension balances of all insured persons in this category as of December 31, 2011, with the addition of the estimated pension credit earned in 2011. The method of calculating the pension liability to the economically active and to retirees, as well as the economic annuity divisors, is shown in Appendix B, Section 4.

The ATP liability to the economically active cannot be calculated directly from the data in the records of pension credit earned. In order to determine the ATP liability, an estimate is made of the ATP of the every individual in the year when they reach 65 (applies to those born in or before 1953). The estimated annual amount is multiplied by the economic annuity divisor for 65-year-olds in the year of the accounts. Persons older than 65 who have not yet begun to draw their entire pension at the time of calculation are assumed to do so in the following year. To obtain the present value of the estimated pension liability, the liability is reduced by the individual's expected future contributions to the system and discounted by the expected future increase in the income index. In the calculation it is assumed that the average income will increase by 2 percent annually. The ATP liability to the economically active will gradually diminish and will in principle be gone entirely by 2018.

Table A Analysis of the Change in Inkomstpension Liability to the Economically Active, 2011, millions of SEK

Inkomstpension liability to the economically active, December 31, 2010	4,286,921
of which estimated inkomstpension credit earned in 2010	-196,345
Pension balance, December 31, 2010	4,090,576
Inheritance gains arising from persons dying before age 60*	-6,171
Adjustments affecting pension balances**	-356
Opening pension balance, 2011	4,084,049
Changes in tax assessments etc. affecting pension balances	-2,376
Confirmed inkomstpension credit earned in 2010	198,756
Distributed inheritance gains from persons dying at or after age 60	6,288
Distributed inheritance gains from persons dying before age 60	6,203
Indexation	214,296
Deduction for administrative costs	-1,479
Pensions drawn	-155,328
Pensions revoked	917
Inheritance gains arising, persons dying at or after age 60	-4,453
Pension balances as of December 31, 2011	4,346,873
Estimated inkomstpension credit earned in 2011	208,967
Inkomstpension liability to the economically active as of December 31, 2011	4,555,840

* Distributed in 2011.

** Transfers to the European Communities (see Note 2), adjustments for deceased persons, sealed cases, etc.

Table B Analysis of the Change in ATP Liability to the Economically Active, 2011, millions of SEK

ATP liability to the economically active, December 31, 2010	511,476
Effect of difference between assumption for 2011 and estimate in 2010 etc.	-12,585
Opening ATP liability, 2011	498,891
Indexation	25,720
Estimated value of paid-in contributions for the ATP, 2011	2,916
Pensions drawn	-122,733
Value of other paid-in contributions for the ATP	2,822
Value of change in life expectancy	1,700
ATP liability to the economically active, December 31, 2011	409,316

Table C Analysis of the Change in Pension Liability to Retirees, ATP and Inkomstpension, 2011, millions of SEK

	Inkomst- pension	ATP	Total
Pension liability to retirees, December 31, 2010	623,627	1,944,686	2,568,313
Additional liability to the economically active	154,411 *	122,733 **	277,144
Change in amounts disbursed	6,690	-1,25	5,439
Pensions disbursed***	-44,796	-174,879	-219,675
Indexation	-16,407	-49,042	-65,449
Value of change in life expectancy	3,302	9,032	12,334
Pension liability to retirees, December 31, 2011	726,827	1,851,279	2,578,106

* Net of Pensions drawn and Pensions revoked, see Table A.

** See Table B.

*** See Note 2.

The liability to retirees is changed by indexation, increased by higher life expectancy, and decreased by disbursements made during the year. Pension amounts can change because of new pension credit earned, changes in marital status (applies to the ATP), changes in taxation etc. Such changes in liability are reported as changes in disbursements (changes in amounts). The liability to retirees also increases with the approval of new pensions; this increase in the pension liability is accompanied by a corresponding reduction in the pension liability to the economically active.

Notes and Comments Relating to the Premium Pension

Note 15 Pension Disbursements

	2011	2010
Pension disbursements from fund insurance	1,623	1,220
Pension disbursements from conventional insurance	282	144
Total pension disbursements	1,905	1,364
Transferred to European Communities	1	1
Total	1,906	1,365

At the time of retirement, a pension saver has the option of retaining her/his accumulated balance in fund insurance; the amount of the pension will then depend on the rate of return of the funds chosen by the saver. The other option is to switch to conventional insurance, either on retirement or later. With conventional insurance, the pension is disbursed as a nominal guaranteed monthly amount. If the management of the conventional insurance capital achieves a return higher than the guaranteed rate, pension savers will receive a rebate in the form of a monthly supplement, which may vary from year to year. During 2011, SEK 116 million was disbursed in supplementary amounts, as shown in Note 24. In 2011 the supplementary amount was SEK 47 million.

According to the Act (2002:125) on Transfer of Pension Credit to and from the European Communities (EC), the value of pension credit for EC officials can be transferred from the National Pension Funds and the premium pension system to the service pension system of the EC. In 2011 the sum of SEK 0.5 million was transferred from the premium pension system.

Note 16 Return on Funded Capital

Millions of SEK	Fund insurance	Conventional insurance	2011 Total	2010 Total
Stocks and shares	-43,848	-183	-44,031	44,983
<i>of which Direct return</i>	<i>5,004</i>	<i>21</i>	<i>5,025</i>	<i>4,434</i>
<i>Realized and unrealized capital gains</i>	<i>-48,852</i>	<i>-204</i>	<i>-49,056</i>	<i>40,549</i>
Bonds and other interest-bearing securities	544	933	1,477	-259
<i>of which Direct return (net interest)</i>	<i>13</i>	<i>-2</i>	<i>11</i>	<i>2</i>
<i>Realized and unrealized capital gains</i>	<i>531</i>	<i>935</i>	<i>1,466</i>	<i>-261</i>
Net foreign-exchange gain/-loss	34	-	34	-3,282
Subtotal, return	-43,270	750	-42,520	41,442
Change, conventional insurance	-	836	836	1,042
Total	-43,270	1,586	-41,684	42,484

The return earned includes realized and unrealized foreign-exchange gains and losses after deduction of fund management costs. The average fund management cost after deduction of rebates is 0.30 percent of average capital.

Note 17 Costs of Administration

Millions of SEK	2011	2010
Operating expenses	333	340
Financial items, net	-78	-1
Total	255	339

Financial items, net, refer primarily to borrowing expenses, gain/-loss on trade inventories and interest revenue (net). Costs of fund management are paid directly from insurance assets and thus are not included in the premium pension system's operating expenses. Total costs of administration in 2011 were SEK 340 million, of which SEK 8 million are included in Change, conventional insurance, in Note 16. The corresponding amount for costs of administration in 2010 was SEK 346 million, of which SEK 7 million are included in Note 16. A presentation of the respective gross and net reported costs of the pension system is provided in the section Costs of Administration and Capital Management.

Note 18 New Pension Credit

Millions of SEK	2011	2010
Preliminary contribution revenue, including interest on the premium pension earned in 2011/2010	31,513	30,577
Adjustment amount, confirmed pension credit, see Table A	1,206	843
Change in pension credit	4	39
Allocated management fees, etc.	1,948	1,385
Total	34,671	32,844

Table A Adjustment Amount, New Pension Credit

Confirmed pension credit, including interest, for the premium pension earned in 2010/2009	31,783	30,103
Preliminary contribution for the premium pension earned in 2010/2009	-30,577	-29,260
Total	1,206	843

A new accounting principle has been adopted effective 2011 for Note 18 New Pension Credit, etc. In the operations of the premium pension system, contribution revenue corresponds to new pension credit including interest for the period during which contributions are managed before being invested in the funds of pension savers. During the year, changes in pension credit have arisen from previous earnings years and allocated rebates of fund management fees. Because of this change, the comparison amounts have been recalculated.

Note 19 Change in Value

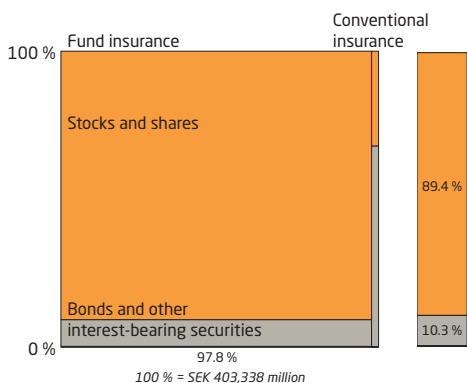
The pension liability was changed by the return on premium pension funds totalling SEK 42,520 million in 2011. In 2010 the amount was negative, SEK -41,442 million; see Note 16.

Note 20 Inheritance Gains Arising, Inheritance Gains Distributed

Inheritance gains arising and distributed are analogous to decedents' capital. Inheritance gains are distributed once a year; in addition, a minor portion is distributed during the course of the year in connection with changeovers from fund insurance to conventional insurance. In 2011 inheritance gains distributed were SEK 892 million; this amount was determined by the sum of the capital released by deaths in calendar year 2010. The corresponding amount distributed in 2010 was SEK 670 million. Inheritance gains distributed in 2011 (2010) include SEK 24 (22) million in connection with changeovers from fund insurance to conventional insurance. This item also includes reductions in premium pension credit when premium pensions are transferred between spouses. In 2011, a total of 8,132 persons transferred an aggregate amount of SEK 63 million between spouses or registered partners. The corresponding numbers for 2010 were 7,938 people and SEK 58 million.

Note 21 Deduction for Costs of Administration

The amount of SEK 437 million is for fees deducted by the Swedish Pensions Agency to finance the costs of the administration of the premium pension system in 2011. In 2010 the corresponding amount was SEK 546 million. The average fee for 2011 (2010) was 0.11 (0.16) percent of the account balances of pension savers with a ceiling of SEK 110 (125). During the build-up phase and until 2018, the premium pension system will be financed by a combination of fees deducted, interest-bearing overdrafts for working capital needs and borrowing within authorized limits from the National Debt Office. The amount of the fee deducted was based on the cost level forecast for 2011.



Note 22 Insurance Assets

Millions of SEK	Fund- insurance	Conventional insurance	Temporary management	2011 Total	2010 Total
Stocks and shares	357,585	2,837		360,422	380,015
Bonds and other interest-bearing securities	35,584	6,011	30,191	71,786	62,104
Trade in progress and inheritance gains arising	1,299	22		1,321	1,126
Total	394,468	8,870	30,191	433,529	443,245

Inheritance gains arising for 2011(2010) total SEK 1,029 (864) million, of which fund insurance accounts for SEK 984 (842) million and conventional insurance for SEK 44 (22) million; these gains will be distributed to pension savers in 2012 (distributed in 2011).

Temporary management of preliminary contributions refers to income year 2011.

As of December 31, 2011, the number of premium pension savers totaled 6,445,763, of whom 6,259,067 had invested their savings in fund insurance and 186,696 in conventional insurance. The number of premium pension savers receiving pension disbursements was 898,204.

Temporary management of preliminary contributions is included beginning with 2011 in the Note 22 Insurance Assets; previously it was included in Note 23 Other Assets. The figures to be compared have been adjusted.

Note 23 Other Assets

Millions of SEK	2011	2010
The Swedish Pensions Agency's administrative inventory of fund shares (trading inventory)	17	46
Other assets	2,535	2,514
Total	2,552	2,560

The Swedish Pensions Agency's administrative inventory of fund shares is used to facilitate trade in fund shares by reducing the number of trading transactions with fund managers.

Other assets consist of cash and bank balances, fund trading in progress, other receivables and accrued interest revenue.

In the preceding Orange Report, temporary management of preliminary contributions was included in this note. In the present report that item has been moved to Note 22 Insurance Assets. Also, in the preceding report the premium pension's share of the joint assets of the Swedish Pensions Agency was also included; this item has now been moved from Note 23 to Note 26 Other Liabilities and is reported in the row Swedish Pensions Agency, Assets, Liabilities and Net Result. The figures to be compared have been adjusted.

Note 24 Change in Results Brought Forward

Millions of SEK	Fund insurance	Conventional insurance	2011 Total	2010 Total
Opening results brought forward:				
Consolidation fund	-1,204	1,650	446	-756
Rebate paid from consolidation fund*	-	-116	-116	-47
Recalculated opening results brought forward	182	836	1,018	1,249
Total results brought forward	-1,022	2,370	1,348	446

* Disbursed rebate for 2011/2010 is included in the Balance Sheet item Opening results brought forward.

The Swedish Pensions Agency reports an overall negative owner equity for its operations. The solvency provisions in the Insurance Businesses Act do not apply to the Swedish Pensions Agency; through 2018 negative results brought forward (accumulated deficits) will be financed by overdrafts with the National Debt Office. It is expected that by 2018 a balance between assets and liabilities will be achieved. Conventional insurance reports a negative result that is charged to the consolidation fund under Results brought forward.

The amounts in the consolidation fund are distributed to pension savers as a refund in connection with pension disbursements.

Note 25 Pension Liability

Information on the calculation of economic annuity divisors is found in Appendix A.

Millions of SEK	2011	2010
Pension liability, fund insurance	394,468	409,636
Pension liability, conventional insurance	6,485	3,288
Liabilities in regard to preliminary contributions	30,191	28,652
Total	431,144	441,576

The pension liability is a liability to economically active and to retired pension savers. The item of Pension liability, fund insurance, is linked primarily to fund shares and is affected by the development of the market value of the funds chosen. Fund holdings are valued at the price quoted on the closing day of the accounts and correspond to value of the insurance assets in Note 22.

The item of Pension liability, conventional insurance, is calculated for each pension saver choosing this form of insurance and is the capital value of the remaining guaranteed disbursements. The value is calculated on assumptions about future return, life expectancy and operating expenses; the value of the asset is shown in Note 22.

Information on how the economic annuity divisors for fund insurance and conventional insurance are calculated is found in Appendix A.

Liabilities in regard to preliminary contributions have been moved from Note 26 Other Liabilities. Table C has been added, showing the change this year, corresponding to the assets under temporary management; compare Note 22. The figures to be compared have been adjusted.

Table A Closing Pension Liability for Fund Insurance, 2011, millions of SEK

Pension liability, fund insurance, December 31, 2010	409,636
Confirmed premium pension credit earned in 2010	31,399
Change, pension credit for the premium pension	4
Switch to conventional insurance	-3,177
Management fees allocated, etc.	1,931
Inheritance gains distributed*	-864
Change in value	-43,271
Deduction for costs of administration	-437
Decrease in liability for pensions drawn in 2011	-1,623
Inheritance gains arising	864
Other	7
Premium pension capital, December 31, 2010	394,469
Adjustment affecting premium pension capital**	-1
Pension liability, fund insurance, December 31, 2011	394,468

* Inheritance gains, capital released in 2010, to be allocated in 2011.

** Amounts transferred to the European Communities, etc.

Table B Closing Pension Liability for Conventional Insurance, 2011, millions of SEK

Pension liability, conventional insurance, December 31, 2010	3,288
Confirmed premium pension credit earned in 2010	384
Change in pension credit, premium pension	0
Switch from fund insurance	3,177
Management fees allocated, etc.	10
Inheritance gains distributed*	28
Change in value	751
Decrease in liability because of pensions drawn in 2011	-283
Other	0
Change in pension liability**	-842
Premium pension capital, December 31, 2011	6,485
Pension liability, conventional insurance, December 31, 2011	6,485

* Inheritance gains, capital released in 2010, allocated in 2011.

** Costs of administration SEK -8, inheritance gains arising in 2010 SEK +28, included in change in pension liability; see Note 24 Change in owner equity.

Table C Closing Pension Liability for Preliminary Contributions, 2011, millions of SEK

Liability, preliminary contributions, December 31, 2010	28,652
Confirmed pension credit, premium pension incl. interest, earned in 2010	-30,412
Preliminary contributions, premium pension, earned in 2011	31,513
Change in value	19
Other	17
Settlement, preliminary contributions, previous years	402
Premium pension capital, December 31, 2011	30,191
Liability, preliminary contributions, December 31, 2011	30,191

The pension liability is changed by new pension credit earned, preliminary contributions, and changes in the extent of pension withdrawal, changes in pension credit due to changes in taxation, changes in value of assets, costs of administration, pension disbursements and estimates of future mortality for the insured.

Note 26 Other Liabilities

	2011	2010
Other liabilities	3,396	3,680
Share of consolidated Pensions Agency liabilities, Pensions Agency assets, liabilities and result, net	193	103
Total	3,589	3,783

Other liabilities consist chiefly of fund trading in progress, borrowings from the National Debt Office, accrued management fees and accrued interest fees.

Liabilities in regard to preliminary contributions have been moved to Note 25 Pension Liability. The accounting for the premium pension's share of the Pensions Agency's joint assets, liabilities and results has been simplified. Previously these items were reported in Notes 23 and 26, but beginning in 2011 they are included in the item Swedish Pensions Agency, Joint Assets, Liability and Net Result, amounting in 2011 to SEK -193 (2010 SEK -103) million. The net amount refers to other operations and is included so that the balance sheet will balance. The figures to be compared have been adjusted.

Appendix A. Calculation Factors

The Earnings Related Old Age Pension Act, or LIP, (1998:674), requires the Swedish Pensions Agency to calculate the income index. In addition, the Agency is obligated by the Regulations for the Earnings Related Old Age Pension (1998:1340) to calculate and confirm factors for inheritance gains, administrative costs and annuity divisors.

LIP requires that premium pension operations be conducted according to sound insurance principles. These principles, as interpreted by the Swedish Pensions Agency, govern the calculation of the rebate rate, inheritance gains and annuity divisors for the premium pension. Further, the Swedish Pensions Agency is to calculate the fee that will finance premium pension operations.

Income Index

The development of average income is shown by the change in the income index. Here, income refers to pension-qualifying income without limitation by the ceiling, but after deduction of the individual pension contribution.

Income Index(t) =

$$\left(\frac{u(t-1)}{u(t-4)} \times \frac{CPI(t-4)}{CPI(t-1)} \right)^{\frac{1}{3}} \times \frac{CPI(t-1)}{CPI(t-2)} \times k \times \text{Income Index}(t-1)$$

$$u(t) = \frac{Y(t)}{N(t)}$$

where

t = calendar year

$CPI(t)$ = consumer price index for June of year t

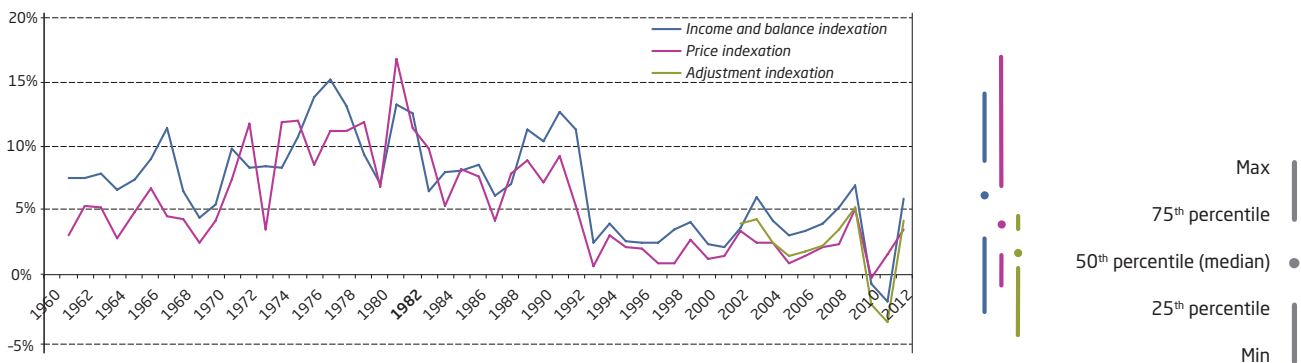
k = adjustment factor for error in estimation of $u(t-2)$ and $u(t-3)$

$Y(t)$ = total pension-qualifying income without limitation by the ceiling, persons aged 16–64 in year t , after deduction of the individual pension contribution

$N(t)$ = number of persons aged 16–64 with pension-qualifying income in year t

The change in the index consists of two parts. The first is the average annual change in average income for the latest three-year period, excluding inflation; the second is inflation for the latest 12-month period ending in June. Pension-qualifying income is not known until after the final tax assessment, i.e. in December of the year following the income year. This means that the income for the two most recent years is based on estimates. Errors in estimates are corrected in the indices for subsequent years. Inflation for the three-year period is excluded, and the inflation for the most recent

Indexation



year is restored, to permit more rapid adjustment of pensions to changes in the inflation rate than would have resulted with a "pure" three-year moving average for the development of income.

The change in the income index between year $t-1$ and year t affects the pension liability to retirees in year t via adjustment indexation of inkomstpension and ATP disbursements (see Note 8 and Note 14, Table C). The change in the income index between years t and $t+1$ affects the inkomstpension liability to the economically active in year t via income indexation of pension balances (see Note 8 and Note 14, Table A).

Balance Index

When balancing is activated, the balance index is used instead of the income index.

$$Balance\ index(t) = I(t) \times BR(t)$$

$$Balance\ index(t+1) =$$

$$Balance\ index(t) \times (I(t+1) / I(t)) \times BR(t+1) = I(t+1) \times BR(t) \times BR(t+1)$$

where

$I(t)$ = income index, year t

$BR(t)$ = balance ratio, year t

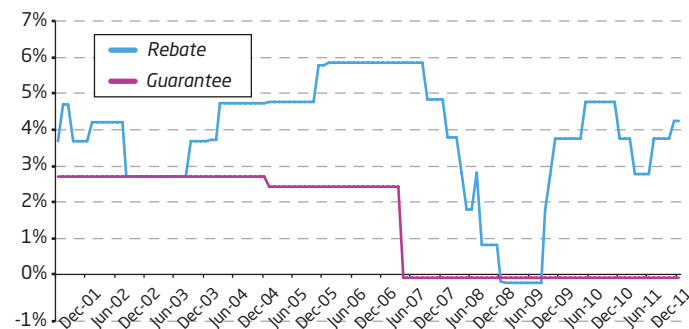
At the end of year $t-1$, indexation takes place via multiplication of pensions by the ratio between the balance index for year t and the income index for year $t-1$ divided by 1.016, and of pension balances by the ratio between the balance index for year t and the income index for year $t-1$. At the end of year t , there is analogous indexation of the ratio between the balance index for year $t+1$ and the balance index for year t . Indexation by the balance index ceases when the product of the balance indices is ≥ 1 , that is, when the balance index reaches the level of the income index.

Bonus Rate

If an individual elects to draw her/his premium pension in the form of conventional insurance, the amount disbursed is recalculated each year. It may be higher than the guaranteed amount if the conventional life insurance business achieves a better result than was assumed when the guaranteed amount was calculated. The result of the conventional insurance business is reflected in the bonus rate used to increase the value of the conventional insurance.

The bonus rate does not affect the pension liability, as the latter is calculated on the basis of the guaranteed amount.

Rate of Rebate and Guarantee



Inheritance Gain Factors for the Inkomstpension

The pension balances of deceased persons are credited to the survivors in the same age group in the form of inheritance gains. For the economically active, this is done through multiplying the pension balances of the survivors by an inheritance gain factor for the inkomstpension.

$$\text{Inheritance Gain Factor}_i(t) = 1 + t \frac{\sum_{j=2}^{17} PBd_{j-1}(t-1)}{\sum_{j=2}^{17} PB_{j-1}(t-1)} \quad \text{for } i = 2, 3, \dots, 17$$

$$\text{Inheritance Gain Factor}_i(t) = 1 + \frac{PBd_{i-1}(t-1)}{PB_{i-1}(t-1)} \quad \text{for } i = 18, 19, \dots, 60$$

$$\text{Inheritance Gain Factor}_i(t) = \frac{(L_{i-1}(t) + L_i(t))}{(L_i(t) + L_{i+1}(t))} \quad \text{for } i = 60, 61, \dots$$

where

i = age at end of year t

$PBd_{i-1}(t-1)$ = total pension balances in year $t-1$ for persons dying in year $t-1$ in age group $i-1$

$PB_{i-1}(t-1)$ = total pension balances in year $t-1$ for survivors in year $t-1$ in age group $i-1$

$L_i(t)$ = number of survivors in year t out of 100,000 born in age group i , according to the life span data of Statistics Sweden for the five-year period immediately preceding the year when the insured reaches age 60 for $i = 60-64$ and age 64 for $i = 65$ or older

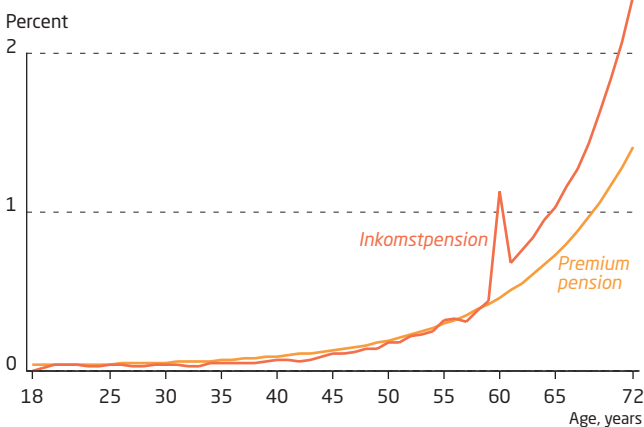
For persons 60 years old or less, the inheritance gain factor is calculated as the sum of the pension balances of the deceased divided by the sum of the pension balances for the survivors in the same age group. For the group aged 2–17 years, a common inheritance gain factor is calculated. Because there is some delay in information on persons dying during the year, the distribution of inheritance gains to persons aged 60 or less is made with a time lag of one year. For older persons, inheritance gain factors are calculated on the basis of life-expectancy statistics from Statistics Sweden. The distribution of inheritance gains to older persons is made in the year of death.

Inheritance gains arising after retirement are implicitly taken into account in the annuity divisor, through redistribution from individuals who die earlier to those

who live longer. For the purpose of distributing inheritance gains by the same principle for both the economically active and retirees in the same birth cohort, the method of allocation is changed from age 60 on. The change of method is made in the year when the individual turns 60 in order to avoid delay in the allocation of inheritance gains for the year prior to retirement for persons who begin drawing their pensions at age 61. In the year when an insured turns 60, he or she is credited with double inheritance gains because of the two different procedures.

The impact of inheritance gains on the pension liability is limited, for it means that the pension balances of deceased persons are redistributed to the survivors. There is, however, an effect on the inkomstpension liability to the economically active because of the difference between inheritance gains arising and inheritance gains distributed;

Inheritance Gains



The inheritance gain factor for the inkomstpension for 60-year-olds is shown in the diagram as the two inheritance gain factors multiplied by each other. In the actual distribution of inheritance gains, however, the two different inheritance gain factors are applied to different bases.

this effect is reported in Note 10. For the group dying before their 60th year, the difference is due to tax assessment changes between the time when inheritance gain factors are calculated and the time when the gains are distributed, and to late information on persons dying. For the group dying in their 60th year or thereafter, the reasons are differences between estimated and actual mortality, and possible variations in mortality depending on the insured's level of income, i.e. the effect due to the shorter average life spans, for each gender, of persons with low incomes compared to persons with high incomes.

Inheritance Gain Factors for the Premium Pension

In the premium pension system, inheritance gains are calculated as a percentage of the premium pension capital of the survivors. The percentage corresponds to the one-year risk of death, i.e. the probability of dying within one year. For both the economically active and retirees, inheritance gains for the premium pension are currently distributed once a year. As with the inkomstpension, inheritance gains arising after retirement are included in the annuity divisor and are allocated through distribution of actual gains. If the insured elects a survivor benefit, the inheritance gain will be much smaller, as it is then based on the probability that the longer-surviving party, whether the primary insured or the co-insured, will die within one year of the first party.

The risk of death in year t is calculated by Makeham's formula (see Annuity Divisors). The values of a , b and c in the formula are determined by the relationship between the capital of pension savers dying in year $t-1$ and the capital of the surviving pension savers in the same year, calculated for each age group. The pension capital used to determine the inheritance gain in year t corresponds to the average balance of the premium pension account as of the last day of every month in year $t-1$. The amounts of the inheritance gains are adjusted by a factor that equalizes the total amount distributed in year t and the capital of pension savers dying in year $t-1$.

The inheritance gains for the premium pension do not affect the pension liability over time, as death capital is offset by inheritance gains distributed.

Administrative Cost Factor, Inkomstpension

The costs of administering the inkomstpension system reduce the pension balances of the economically active. The amount of the deduction from pension balances is recalculated annually through multiplication of pension balances by an administrative-cost factor.

$$\text{Administrative cost factor}(t) = 1 - \left[(B(t) \times A(t) + J(t-1)) / PB(t-1) \right]$$

where

$B(t)$ = budgeted costs of administration, year t

$A(t)$ = proportion charged to pension balances, year t

$J(t-1)$ = adjustment amount, equals the difference between the amount that would have been deducted from pension balances in year $t-1$, based on actual cost in year $t-1$ and the adjustment amount in year $t-2$, and the actual deduction from pension balances in year $t-1$.

$PB(t-1)$ = total pension balances, year $t-1$

The administrative-cost factor is calculated on the basis of a certain proportion, A , of budgeted costs for year t . Until the year 2021, the proportion charged to pension balances will be less than 100 percent (see Note 11). Moreover, there is an adjustment for the administrative costs of year $t-1$. The adjustment amount is equal to the difference between the amount that would have been deducted from pension balances, based on actual cost and the adjustment amount for the previous year, and the actual deduction made from pension balances in the same year.

The administrative-cost factor affects the inkomstpension liability to the economically active via the deduction from pension balances (see Note 14, Table A). The difference between total costs of administration (see Note 4) and the deduction from pension balances puts a strain on the balance ratio.

Charge for Costs of Administration, Premium Pension

The costs of administration for the premium pension system are not to exceed 0.3 percent of the aggregate balances of the premium pension accounts of pension savers. The charge, which is deducted from premium pension accounts once a year, is intended to cover the total operating costs of the premium pension, including interest and other financial expenses.

Administrative costs affect the capital of the premium pension system; through the deduction from pension balances, they also affect the premium pension liability by the same amount (see Notes 17 and 21).

Annuity Divisors for the Inkomstpension

The annuity divisors for the inkomstpension are used for recalculation of pension balances as annual disbursements and are a measure of life expectancy at retirement, with interest of 1.6 percent (the norm) credited to pensions in advance.

Annuity Divisors_i =

$$\frac{1}{12L_i} \sum_{k=i}^r \sum_{X=0}^{11} \left(L_k + (L_{k+1} - L_k) \frac{X}{12} \right) (1,016)^{-(k-i)} (1,016)^{-X/12} \text{ för } i = 61, 62, \dots r$$

where

$k-i$ = number of years of retirement ($k=i, i+1, i+2$ etc.)

X = number of months (0, 1, ...11)

L_i = number of survivors in age group i per 100,000 born, according to the life span statistics of Statistics Sweden. These statistics are for the five-year period immediately preceding the year when the insured reached age 60 in the case of pension withdrawal before age 65, and age 64 in the case of withdrawal thereafter

For persons who have begun drawing their old-age pensions before age 65, the amount disbursed is recalculated, in accordance with recalculated annuity divisors, at the start of the year when the individual turns 65. The reason for the recalculation is the change in the underlying statistical data for the latest life expectancy statistics available in the individual's 65th year. With the continuing increase in life expectancy, the recalculated annuity divisors have so far been higher than before, resulting in reduction of future monthly pensions. The consequent marginal decrease in the inkomstpension liability to retirees is a component of the "Change in Amounts Disbursed" in Note 14, Table C.

After age 65, there is no further recalculation of annuity divisors. The increase in the pension liability of the system resulting from the fixed annuity divisors puts strain on the balance ratio when life expectancy is increasing.

Withdrawal of an old-age pension involves a transfer of pension liability from the economically active to retirees. The actual recalculation of pension balances as annual disbursements results in a marginal change in the pension liability. The change arises because of the difference between annuity divisors and what we refer to as "economic annuity divisors" in this report. For a description of economic annuity divisors, see Appendix B, Section 4. The economic annuity divisors are used to calculate the pension liability to retirees.

Confirmed Annuity Divisors for the Inkomstpension*

	Age									
	61	62	63	64	65	66	67	68	69	70
1938	17.87	17.29	16.71	16.13	15.56	14.99	14.42	13.84	13.27	12.71
1939	17.94	17.36	16.78	16.19	15.62	15.04	14.47	13.89	13.32	12.76
1940	18.02	17.44	16.86	16.27	15.69	15.11	14.54	13.96	13.39	12.82
1941	18.14	17.56	16.98	16.39	15.81	15.23	14.65	14.08	13.50	12.94
1942	18.23	17.65	17.06	16.48	15.89	15.31	14.74	14.16	13.59	13.02
1943	18.33	17.75	17.16	16.58	15.99	15.41	14.84	14.26	13.68	13.11
1944	18.44	17.86	17.28	16.70	16.11	15.54	14.96	14.38	13.80	13.23
1945	18.55	17.96	17.38	16.80	16.22	15.64	15.07	14.48	13.91	13.33
1946	18.64	18.05	17.47	16.89	16.31	15.73	15.16	14.57	13.99	13.41
1947	18.73	18.15	17.56	16.98	16.40	15.83	15.24	14.66	14.07	13.49

* Annuity divisors are confirmed each year up to age 80, but the table shows only the divisors up to age 70.

Annuity Divisors for the Premium Pension

To calculate the annual premium pension, the value of the premium pension account is divided by an annuity divisor for the premium pension. Unlike the inkomstpension, the annuity divisor for the premium pension is based on forecasts of life expectancy.

$$\text{Annuity Divisors}_x = \int_0^{\infty} e^{-\delta t} \frac{l(x+t)}{l(x)} dt$$

$$l(x) = e^{-\int_0^x \mu(t) dt}$$

$$\mu(x) = a + be^{cx}$$

where

x = exact age at time of retirement

The annuity divisors are calculated in continuous time and according to exact age at retirement, but in principle they are consistent with the formula for the annuity divisor for the inkomstpension.²⁸ The survival function, $l(x)$, can be considered equivalent to the number L used in the calculation of the inkomstpension. The mortality function, $\mu(x)$, is the so-called Makeham's formula used for calculating the risk of death within one year. The values of a , b and c correspond to Statistics Sweden's forecast of remaining life expectancy in the years 2009–2060 for individuals born in 1946.²⁹ In the calculation of the guaranteed amount in conventional insurance, use is made of Statistics Sweden's low-mortality alternative, reduced by a further 10 percent. By contrast, Statistics Sweden's main alternative is used for mortality in calculating the pension amounts to be paid out. The purpose is to ensure that the assumed payout profile is as realistic as possible and not unnecessarily conservative.

Since April 1, 2007, the interest credited in fund insurance, δ , has been 4.0 percent before the charge for costs of administration in fund insurance. From that date on, a premium pension paid out in the form of conventional insurance is calculated with an interest rate that is presently 2.3 percent, and the guaranteed amount with an interest rate of 0.0 percent. The interest rate used in calculating the guaranteed amount was previously much higher; see the diagram Rate of Rebate and Guarantee.

Since April 1, 2008, the actuarial provisions (FTA) are valued on the basis of the market rates of interest on liquid treasury bills and government bonds at the time of valuation. A charge of 0.1 percent is deducted from these interest rates in order to cover the premium pension costs.

For the premium pension in the form fund insurance, the pension liability is equal by definition to the value of all the assets, which in turn equals the aggregate value

²⁸ The formula applies in cases where one life is insured, i.e. where there is no survivor coverage.

²⁹ Persons born in 1946 constitute the birth cohort closest to age 65 during the period 2010–12. Current values for Annual Amount (Fund Insurance): $a=0,0064$, $b=0,00000018$, $c=0,1498$, $\delta=3,8221$ percent, equivalent to an annual interest rate of 3,8961 percent. For $x>97$ $\mu(x)$ merges with a straight line with a slope of 0,001.

Appendix A. Calculation Factors

of all fund shares. For fund insurance, therefore, a change in annuity divisors has no effect on the pension liability. In the case of conventional insurance, the pension liability is equal to the actuarial provisions (FTA) and is calculated by multiplying every guaranteed amount by an annuity divisor. The annuity divisor is determined in the same way as pension amounts. In the calculation of FTA, however, separate mortality assumptions are used for women and men. The FTA increases if a lower mortality rate or interest rate is assumed.

Annuity Divisors for Annual Amount (Fund Insurance)

Without survivor benefit

Age	61	62	63	64	65	66	67	68	69	70
	15.09	14.78	14.46	14.13	13.80	13.45	13.09	12.73	12.35	11.97

With survivor benefit

Age, co-insured	Age, primary insured									
	61	62	63	64	65	66	67	68	69	70
55	18.35	18.25	18.15	18.06	17.97	17.88	17.80	17.73	17.65	17.58
60	17.56	17.42	17.29	17.16	17.03	16.91	16.80	16.69	16.59	16.49
65	16.85	16.66	16.48	16.31	16.13	15.97	15.81	15.65	15.50	15.36
70	16.27	16.04	15.81	15.59	15.36	15.14	14.92	14.71	14.50	14.30

Annuity Divisors for Annual Amount (Conventional Insurance)

Without survivor benefit

Age	61	62	63	64	65	66	67	68	69	70
	18.27	17.81	17.34	16.86	16.38	15.88	15.38	14.88	14.36	13.84

With survivor benefit

Age, co-insured	Age, primary insured									
	61	62	63	64	65	66	67	68	69	70
55	23.10	22.94	22.79	22.64	22.51	22.38	22.26	22.14	22.04	21.93
60	21.77	21.55	21.34	21.13	20.94	20.76	20.59	20.43	20.28	20.14
65	20.64	20.35	20.07	19.80	19.53	19.28	19.04	18.81	18.60	18.39
70	19.78	19.43	19.08	18.73	18.39	18.06	17.74	17.43	17.13	16.85

Annuity Divisors for Guaranteed Annual Amount (Conventional Insurance)

Without survivor benefit

Age	61	62	63	64	65	66	67	68	69	70
	27.20	26.35	25.49	24.65	23.81	22.97	22.15	21.33	20.52	19.72

With survivor benefit

Age, co-insured	Age, primary insured									
	61	62	63	64	65	66	67	68	69	70
55	36.72	36.39	36.07	35.77	35.50	35.24	35.00	34.78	34.57	34.38
60	33.92	33.47	33.06	32.66	32.29	31.94	31.62	31.31	31.03	30.77
65	31.71	31.15	30.62	30.11	29.63	29.18	28.75	28.34	27.96	27.60
70	30.09	29.44	28.80	28.19	27.60	27.04	26.50	25.98	25.49	25.02

Appendix B. Mathematical Description of the Balance Ratio

Excerpts from Regulation 2002:780 on the Calculation of the Balance Ratio *

* Some editing has been done to simplify the presentation.

In accordance with the Social Insurance Code (SFB, 2010:110, Chapter 58 § 14) on the Earnings Related Old Age Pension, a balance index is to be calculated annually. The appropriation directions provide that the Swedish Pensions Agency shall calculate and prepare a projection for the balance index, which is to be confirmed subsequently by the Government.

1. Balance ratio, BR ,

$$BR(t+2) = \frac{CA(t) + \overline{F}(t)}{S(t)} \quad (1.0)$$

$$CA(t) = \overline{C}(t) \times \overline{T}(t) \quad (1.1)$$

$$\overline{BF}(t) = \frac{BF(t) + BF(t-1) + BF(t-2)}{3} \quad (1.2)$$

$$\overline{C}(t) = \frac{C(t) + C(t-1) + C(t-2)}{3} \times \left(\frac{C(t)}{C(t-3)} \times \frac{CPI(t-3)}{CPI(t)} \right)^{\frac{1}{3}} \times \left(\frac{CPI(t)}{CPI(t-1)} \right) \quad (1.3)$$

$$\overline{T}(t) = \text{median} [T(t-1), T(t-2), T(t-3)] \quad (1.4)$$

where

t = calendar year if the variable refers to flows, end of calendar year if the variable refers to stocks

$CA(t)$ = contribution asset, year t

$F(t)$ = buffer fund, the aggregate market value of the assets of the First-Fourth and Sixth National Pension Funds in year t . By market value is meant the value which in accordance with Ch. 6, § 3 of the National Pension Funds Act (2000:192) and Ch. 4, § 2 of the Sixth National Pension Fund Act (2000:193) is to be shown in the annual reports of these funds.

$\overline{BF}(t)$ = smoothed value of buffer fund, year t

$S(t)$ = pension liability, year t

$\overline{C}(t)$ = smoothed contribution revenue of the pay-as-you-go system, year t

$\overline{T}(t)$ = smoothed turnover duration, year t

$C(t)$ = contributions to the pay-as-you-go system, year t

$T(t)$ = turnover duration, year t

$CPI(t)$ = consumer-price index for June, year t

2. The average retirement age, \overline{R} , is calculated as

$$\overline{R}(t) = \frac{\sum_{i=61}^{R^*(t)} U_i^*(t) \times D_i(t) \times i}{\sum_{i=61}^{R^*(t)} U_i^*(t) \times D_i(t)}, \quad \overline{R} \text{ avrundas till n\u00e4rmaste heltal} \quad (2.0)$$

d\u00e4r

i = age at year-end

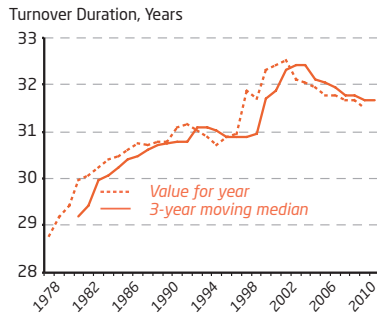
$R^*(t)$ = the oldest age group for which pensions have been granted in year t

$P_i^*(t)$ = the total of pensions granted monthly in year t to persons in age group i

$G_i(t)$ = annuity divisor in year t for age group i

3. Turnover duration, T ,

$$OT(t) = IT(t) + UT(t) \tag{3.0}$$



	Change measured percent	Change in percent with 3-year moving median
3	0	0
2	0	22366
1	148	114
0	002222244455568	2257778
-0	6555543220	9996554330
-1	3	5

1 | 148 to be read as three annual changes of 1.1, 1.4 and 1.8 percent, respectively

3.1 Pay-in duration, ID ,

$$ID(t) = \frac{\sum_{i=16}^{\bar{R}(t)-1} \bar{E}_i(t) \times L_i(t) \times (\bar{R}(t) - i - 0,5)}{\sum_{i=16}^{\bar{R}(t)-1} \bar{E}_i(t) \times L_i(t)} \tag{3.1.1}$$

$$\bar{E}_i(t) = \frac{\frac{E_i(t)}{N_i(t)} + \frac{E_{i+1}(t)}{N_{i+1}(t)}}{2} \text{ for } i = 16, 17, \dots, \bar{R}(t)-2 \tag{3.1.2}$$

$$\bar{E}_{\bar{R}(t)-1}(t) = \frac{E_{\bar{R}(t)-1}(t)}{N_{\bar{R}(t)-1}(t)} \tag{3.1.3}$$

$$L_i(t) = L_{i-1}(t) \times h_i(t) \text{ for } i = 17, 18, \dots, \bar{R}(t)-1 \text{ where } L_{16}(t) = 1 \tag{3.1.4}$$

$$h_i(t) = \frac{N_i(t)}{N_{i-1}(t-1)} \text{ for } i = 17, 18, \dots, \bar{R}(t)-1 \tag{3.1.5}$$

where

$E_i(t)$ = the sum of 16 percent of pension qualifying-income calculated in accordance with Ch. 2 of the Earnings Related Old Age Pension Act (1998:674) and 16 percent of the imputed pension-qualifying income calculated in accordance with Ch. 3 of said act in pay-in year t age group i for individuals who have not been registered as deceased

$N_i(t)$ = number of individuals in age group i who at any time through pay-in-year t have been credited with pension-qualifying income or pension-qualifying amounts and have not been registered as deceased

$L_i(t)$ = proportion of persons in age group i in year t

$h_i(t)$ = change in proportion of persons in age group i in year t

3.2 Pay-out duration, OD ,

$$OD(t) = \frac{\sum_{i=\bar{R}(t)}^{R(t)} 1.016^{-(i-\bar{R}(t)+0,5)} \times L_i^*(t) \times (i-\bar{R}(t) + 0,5)}{\sum_{i=\bar{R}(t)}^{R(t)} 1.016^{-(i-\bar{R}(t)+0,5)} \times L_i^*(t)} \quad (3.2.1)$$

$$L_i^*(t) = L_{i-1}^*(t) \times he_i(t) \text{ where } L_{60}^*(t) = 1 \quad (3.2.2)$$

$$he_i(t) = \frac{P_i(t)}{P_i(t) + Pd_i(t) + 2 \times Pd_i^*(t)} \text{ for } i = 61, 62, \dots, R(t) \quad (3.2.3)$$

where

$R(t)$ = the oldest age group receiving a pension in year t

$P_i(t)$ = total pension disbursements in December of year t to age group i

$Pd_i(t)$ = total of the last monthly pension disbursements to persons in age group i who received pensions in December of year $t-1$ but not in December of year t

$Pd_i^*(t)$ = total of the last monthly pension disbursements to persons in age group i who were granted pensions in year t and did not receive a pension payment in December of year t

$L_i^*(t)$ = proportion of remaining disbursements to age group i in year t

$he_i(t)$ = change in pension disbursements due to deaths in year t , age group i

4. The pension liability, D ,

$$D(t) = AD(t) + DD(t) \quad (4.0)$$

$$AD(t) = K(t) + E(t) + ATP(t) \quad (4.1)$$

$$DD(t) = \sum_{i=61}^{R(t)} P_i(t) \times 12 \times \left(\frac{Ge_i(t) + Ge_i(t-1) + Ge_i(t-2)}{3} \right) \quad (4.2)$$

$$Ge_i(t) = \frac{\sum_{j=i}^{R(t)} \frac{1}{2} \times (L_j^*(t) + L_{j+1}^*(t)) \times 1.016^{i-j-1}}{L_i^*(t)} \text{ for } i = 61, 62, \dots, R(t) \text{ where } L_{R(t)+1}^* = 0 \quad (4.3)$$

where

$AD(t)$ = pension liability in year t in regard to pension commitment for which disbursement has not commenced (pension liability to the economically active)

$DD(t)$ = pension liability in year t in regard to pensions being disbursed to retired persons in the pay-as-you-go system

$K(t)$ = total of pension balances in year t according to Ch. 5, § 2 of the Earnings Related Old Age Pension Act (1998:674)

$E(t)$ = estimated pension credit for the inkomstpension earned in year t according to Ch. 4, §§ 2–6 of said act

$ATP(t)$ = estimated value of the ATP in year t for persons who have not yet begun to receive this pension

$Ge_i(t)$ = economic annuity divisor for age group i in year t

List of Terms

* For amounts and values, see
Statistik och publikationer at
www.pensionsmyndigheten.se

In Swedish

actuarial provisions

försäkringstekniska avsättningar

provisions set aside to guarantee the commitment of the insurer in conventional insurance. The corresponding assets must therefore be invested conservatively to make certain that the insured will receive their benefits during retirement.

adjustment indexation*

följsamhetsindexering

recalculation of pensions by the change in the income index or balance index, reduced by interest of 1.6 percent credited in the annuity divisor. Note that there is no adjustment index, only adjustment indexation. If the income index for year t is designated by $I(t)$, the adjustment indexation is calculated as follows:

Adjustment indexation (at the end of year $t-1$) = $[I(t)/I(t-1)] / 1.016$

annuity divisor*

delningstal

a number that reflects remaining life expectancy at retirement, taking into account the imputed interest credited to the pension to be paid.

In the calculation of the annual inkomstpension and the premium pension, the individual's pension balance and premium pension capital, respectively, are divided by an annuity divisor at the time of retirement (see Appendix A).

Economic annuity divisors are used in the calculation of the pension liability (see Appendix B).

ATP

tilläggs pension

corresponds to the former ATP and folkpension and is paid to all persons born before 1938. Persons born between 1938 and 1953 receive a certain number of twentieths of their income-related pension as ATP and the remaining number of twentieths as inkomstpension and premium pension. The respective number of twentieths depends on the year of birth. The ATP system was a defined-benefit pension system. The ATP portion of the ATP is equivalent to 60 percent of the average pension points for the 15 years with the most pension points; the folkpension portion is equal to 96 percent of one price-related base amount for single pensioners and 78.5 percent for married pensioners. To receive a full pension, an individual must have at least 30 years of pension-qualifying income.

balance index

balansindex

when balancing is activated, pension balances and pensions are indexed by the change in a balance index instead of the income index. Changes in the balance index are dependent on the change in the income index and on the size of the balance ratio.

balance ratio

balanstal

the assets of the pay-as-you-go system, that is, the contribution asset and the buffer fund, divided by the pension liability of the system. The balance ratio can be considered equivalent to the solvency ratio in a funded system. Unlike the solvency ratio, however, the balance ratio provides no information on the amount of funded assets in relation to the pension liability.

balancing

balansering

a method of ensuring via indexation of the pension liability for the inkomstpension (pension balances and pensions paid) that the disbursements of the insurance system will not exceed its revenue. Balancing is activated if the balance ratio drops below 1.0000, that is, if the pension liability exceeds the assets of the system. In that case, the pension liability is compounded at a rate approximately equal to the system's internal rate of return.

buffer fund

buffertfond

absorbs interperiod discrepancies between pension contributions and pension expenditure in a pay-as-you-go system. The primary purpose of the buffer fund is to stabilize pension disbursements and/or pension contributions in relation to economic and demographic variations. The buffer fund of the national public pension system consists of five different funds: the First–Fourth and Sixth National Pension Funds.

ceiling on contributions

avgiftstak

8.07 income-related base amounts. The individual pension contribution and the central government pension contribution are paid on incomes up to a ceiling; the old-age pension contribution is paid on all earned income, but the contribution on the portion of income above the ceiling is not paid to the pension system, but to the central government.

ceiling on pension-qualifying income*

intjänandetak

7.5 income-related base amounts. The maximum income – after deduction of the individual pension contribution – for which pension credit is earned.

central government old-age pension contribution statlig ålderspensionsavgift

a pension contribution paid by the central government. The contribution is 10.21 percent of pension-qualifying social-insurance benefits, except for sickness and activity compensation. For sickness and activity compensation and so-called pension qualifying amounts, the contribution is 18.5 percent.

charge for costs of administration

administrationsavgift

a charge to cover costs of management and operations. Pension balances are reduced by the administrative costs of the inkomstpension and ATP pension systems. This charge is deducted from pension balances as a percentage based on an administrative cost factor. For the premium pension, the charge for costs of administration is taken as a percentage deduction from the premium pension capital of the insured (see Appendix A).

compounding

förräntning

in this report, synonymous with indexation.

- contribution asset** avgiftstillgång
the value of the inflow of contribution to the inkomstpension. It is calculated through multiplication of smoothed annual contribution revenue by smoothed turnover duration.
- contribution base** avgiftsunderlag
the income and other amounts on which pension contributions are paid. The contribution base consists primarily of earned income, but also of social-insurance benefits such as sickness cash benefits and unemployment cash benefits, as well as pension-qualifying amounts.
- contribution revenue** avgiftsinkomst
the total pension contributions paid to the pay-as-you-go system in one year. In the calculation of the contribution asset, smoothed contribution revenue is used.
- conventional insurance** traditionell försäkring
pension insurance where the insurer guarantees that the insured will receive a specified nominal pension amount dependent on the pension balance of the insured. With conventional insurance, the insured have no say in the management of their pension balances. Thus, the level of investment risk is determined by the insurer, who also bears this risk.
- defined-benefit pension system** förmånsbestämt pensionssystem
a pension system in which the insurer bears the financial risk deriving from the variability over time in the mortality rate and in the rate of return on the assets of the system. In a public pension system, the insurer is the taxpayers, which means that contributions/taxes to the system may vary. The value of a pension is set in advance in terms of a certain amount or level, such as final earnings or average income.
- defined-contribution pension system** avgiftsbestämt pensionssystem
a pension system in which pension credit in monetary terms accrues by the same amount as the pension contribution paid by or for the individual. In a defined-contribution pension system, the insured bears the financial risk deriving from the variability over time in the mortality rate and in the rate of return on the assets of the system. This means that the value of a pension may vary.
- fund** fond
a legal entity operated by a fund management company. The fund management company invests in securities in which investors in turn can buy shares.
- fund asset** fondtillgång
the value of the assets at the end of the confirmation year.
- fund insurance** fondförsäkring
pension insurance with no guaranteed pension amount. Through their choice of funds, the insured decide how to invest their saving and bear the risk associated with the development of their pension balances.

- fund strength** fondstyrka
the monetary amount of the buffer fund at the end of a given year divided by the pension disbursements for the same year. It is a measure of the size of the buffer fund in relation to the flow of pension payments.
- funded system** fonderat system
a pension system in which premiums paid in are set aside and invested until the time of pension withdrawal. The premium pension system is an example of a funded system.
- guarantee rule/guaranteed supplement** garantiregel/garantitillägg
a provision guaranteeing that individuals born between 1938 and 1953 will receive a pension at least equivalent to that which they had earned in the ATP system through 1994.
- guaranteed pension** garantipension
provides basic income security for retired individuals who have had little or no income. The guaranteed pension is a supplement to the income-related pension.
- income index** inkomstindex
the change in the income index shows the development of the average income. The measure of income used here is pension-qualifying income, without limitation by the ceiling, but after deduction of the individual pension contribution.
The change in the index is calculated as the average change in real income for the latest three-year period, with the addition of inflation in the latest 12-month period ending with June (see Appendix A).
- income-related base amount*** inkomstbasbelopp
the base amount which is recalculated each year according to the change in the income index. The income-related base amount is used primarily to calculate the ceilings on contributions and pension-qualifying income.
- income-related old-age pension** inkomstgrundad ålderspension
the inkomstpension and ATP plus the premium pension, sometimes also referred to as the earnings-related old-age pension.
- indexation*** indexering
recalculation of pension balances by the change in the income index, or balance index, and the recalculation of pensions by adjustment indexation.
- individual pension contribution** allmän pensionsavgift
the portion of the pension contribution, 7 percent of income up to the ceiling for contributions, paid by the insured together with tax withheld.
- inheritance gain*** arvsvinst
the pension balances, or premium-pension capital, of deceased persons, which are “inherited” by the surviving insured (see Appendix A).

inkomstpension

inkomstpension

the portion of the income-related old-age pension linked to 16 percent of the pension base. The term inkomstpension sometimes includes the ATP.

Here the term is also used to designate the inkomstpension subsystem of the national public pension system. Like the premium pension system, the inkomstpension scheme is a defined-contribution pension system.

internal rate of return

internränta

in this report, compounding of the pension liability so that it increases at the same rate as the assets of the system. The internal rate of return is determined by the change in the contribution revenue of the system and the change in the extent to which these contributions can finance the pension liability – in other words, the change in turnover duration – and by the return on the buffer fund, as well as the cost (gain) due to changes in life expectancy. If balancing is activated, the pension liability is compounded at a rate approximating the internal rate of return of the pay-as-you-go system.

National Pension Funds

AP-fonderna

legally and administratively, the buffer fund of Sweden's pay-as-you-go pension system consists of five different funds: the First, Second, Third, Fourth and Sixth National Pension Funds. Pension contributions are apportioned equally to the First–Fourth National Pension Funds, which also contribute equally to the payment of pensions. The Sixth National Pension Fund receives no pension contributions and pays no pensions. From the standpoint of the pay-as-you-go system, the five buffer funds may be viewed in some respects as a single fund.

national public pension

den allmänna pensionen

Sweden's national pension system. The system comprises the inkomstpension, the premium pension and the guaranteed pension. The inkomstpension may also include the ATP.

old-age pension contribution

ålderspensionsavgift

paid by employers as an employer contribution and by self-employed persons as an individual pension contribution. The contribution rate for the old-age pension is 10.21 percent of total earnings; however, the contribution on the portion of income above the ceiling for contributions is not paid to the pension system, but to the central government.

pay-as-you-go pension systems

fördelningssystem

systems which do not require that the pension liability be matched by a certain amount of funded assets. A pay-as-you-go system is often described as a system where contribution revenue is used directly to finance pension disbursements. However, this description is not totally accurate in the case of a pay-as-you-go system with a buffer fund.

pay-in duration

intjänandetid

reflects the difference in number of years between the expected average age of earning pension credit and the expected average age of retirement.

pay-out duration

utbetalningstid

reflects the difference in number of years between the expected average age of retirement and the expected average age of pension recipients.

pension balance

pensionsbehållning

the total confirmed pension credit for the inkomstpension, recalculated annually by the income index (or the balance index), inheritance gains and the charge for costs of administration.

pension base

pensionsunderlag

the total of an individual's pension-qualifying income and pension-qualifying amounts, but only up to the ceiling on pension-qualifying income.

pension contribution

pensionsavgift

see individual pension contribution, old-age pension contribution and central-government old-age pension contribution.

pension credit

pensionsrätt

an individual's pension credit is 18.5 percent of her/his total pension base and equal to her/his total contribution to the pension system. Individuals born in 1954 or thereafter are credited with 16 percent of their pension base for the inkomstpension and with 2.5 percent of their pension base for the premium pension. Pension credit increases the individual's pension balance and premium-pension capital.

pension level

pensionsnivå

in this report, the average pension in relation to the average pension-qualifying income for persons aged 16–64.

pension liability

pensionsskuld

in this report, the financial commitment of the pension system at the end of each year. For the inkomstpension, the pension liability to the economically active is calculated as the sum of the pension balances of all individuals. The pension liability to retirees is calculated by multiplying the annual pension amount of each birth cohort by the economic annuity divisor for that cohort. Through 2017 the pension liability will also be calculated for the ATP credit earned by the economically active. With fund insurance, the pension liability for the premium pension is calculated as the total value of all fund shares; with conventional insurance, the pension liability is calculated as each guaranteed amount multiplied by an annuity divisor.

pension points

pensionspoäng

the measure of pension credit used in calculating the ATP. Pension points may be earned by persons up to age 64 and born before 1954. Pension points are calculated as follows:

$$\text{Pension points} = \frac{PQI - HPBA}{HPBA}$$

where

PQI = pension-qualifying income

HPBA = the higher price-related base amount

- pension-qualifying amounts** pensionsgrundande belopp
a basis for pension credit not related to actual earned income. Pension-qualifying amounts may be credited for sickness or activity compensation, years with small children, study and compulsory national service.
- pension-qualifying income** pensionsgrundande inkomst
the income which together with pension-qualifying amounts is used to calculate the pension credit of the insured. In principle, pension-qualifying income consists of annual income (earnings, sickness cash benefits, parental cash benefits, unemployment cash benefits, etc.) reduced by the individual pension contribution. Beginning in 2003, annual income must exceed 42.3 percent of one price-related base amount to qualify for pension credit. Pension credit is granted only on income up to the ceiling on pension-qualifying income.
- premium pension** premiepension
the portion of the earnings-related old-age pension designed as a funded system. The pension credit earned for the premium pension is 2.5 percent of the pension base and is invested in securities funds chosen by the insured individual. The premium pension may be withdrawn as fund insurance or as a guaranteed nominal monthly benefit from a conventional insurance policy. Like the inkomstpension system, the premium pension system is a defined-contribution system.
- price-related base amount*** prisbasbelopp
an amount used in the national pension system for purposes including calculation of the guaranteed pension. It is also used in the tax system for such purposes as calculating the basic deduction for the current income year and determining the minimum income level for the obligation to file a tax return, presently 42.3 percent of the price-related base amount for the current year. The price-related base amount is recalculated each year according to the change in the Consumer Price Index (for June). In addition there is a higher price-related base amount, which is used to calculate pension points and also follows changes in the Consumer Price Index.
- return** avkastning
income that results from an investment. For shares of stock, the return may consist of a dividend and the change in the market price. In this report, the concept refers to the direct return plus the change in value of the buffer fund and the premium-pension funds.
- turnover duration** omsättningstid
reflects the expected time from the earning of pension credit until the disbursement of the inkomstpension. Turnover duration is the sum of pay-in duration and pay-out duration. Turnover duration is used for valuation of the contribution inflow. Turnover duration depends on the rules governing the earning of pension credit and the disbursement of pensions and on the patterns of labour force participation and mortality in each age group.

Further information on the Swedish national public pension system is available at the Swedish Pensions Agency website:
www.pensionsmyndigheten.se.

For information on the National Pension Funds, please see the websites of the respective funds:
www.ap1.se, www.ap2.se, www.ap3.se, www.ap4.se and www.ap6.se.

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The cover illustration shows a summary of the average incomes, pension credit earned and pension disbursements for different age groups. The number of persons concerned is represented by the thickness of the bars. The full figure can be found in the centrefold.

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