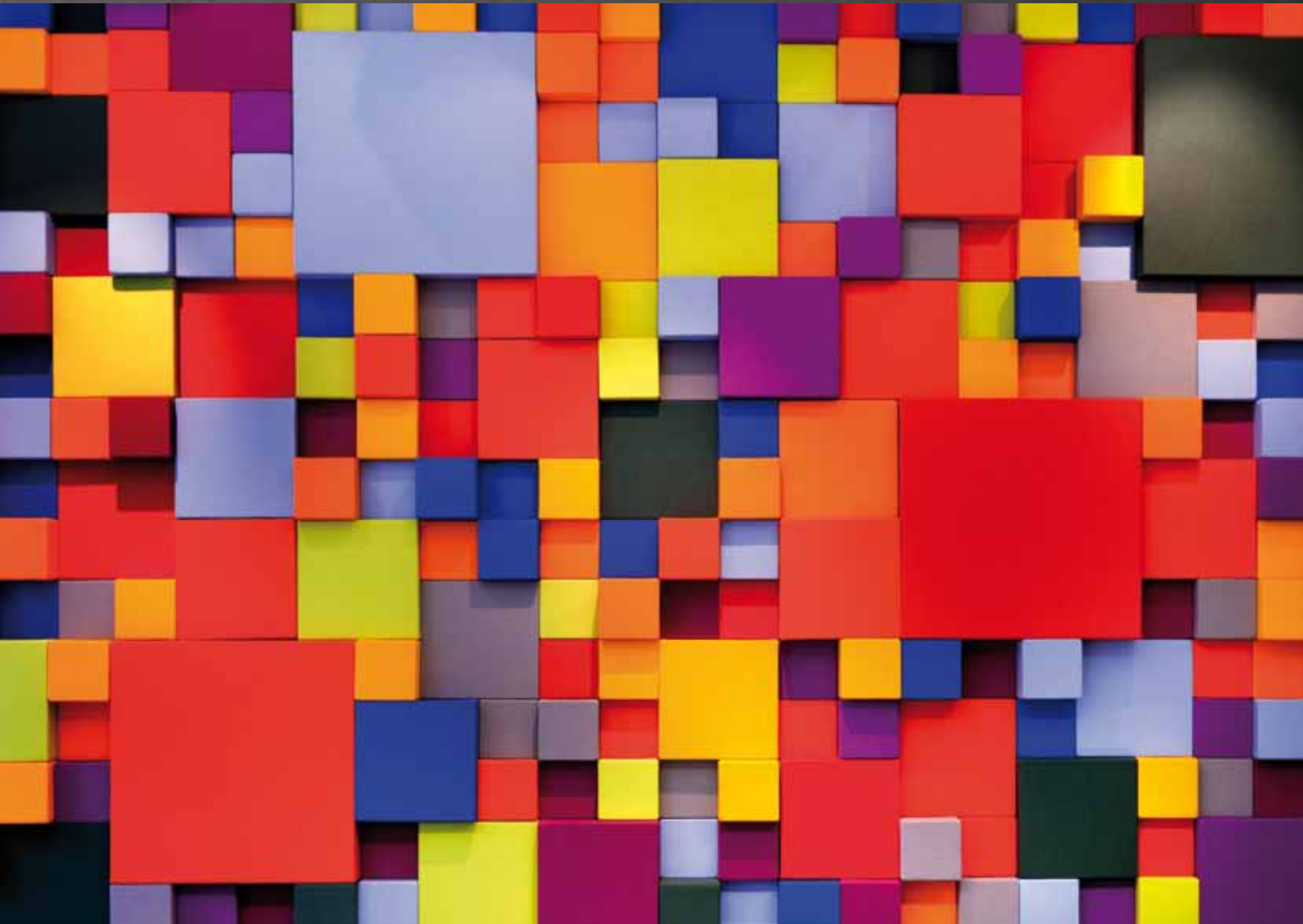


ORANGE REPORT

ANNUAL REPORT OF THE SWEDISH PENSION SYSTEM 2010



PENSIONS
MYNDIGHETEN

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As Easy as That

Last year, 2010, pensions were in focus. The Swedish pension system is so designed that pensions paid out will not exceed the long-term financing capacity of the system. The pension system follows the development of employment and of the economy. Good years will have a visible impact on the system, as will poor years. In 2010 and 2011 pensions were reduced, making pensions an issue in the election campaign last autumn. As a result, taxes were lowered for pensioners. Because of the pension cuts, the deficit of the pension system in previous years has been transformed into a surplus that will be used to increase the indexation of the inkomstpension next year.

While pensions were a major election issue here in Sweden, there was even greater controversy over pensions in other countries; in some places people went out into the streets to demonstrate. The same system that made pensions an election issue in Sweden was held out as a model in countries like France and Greece, which have considerable problems in financing their pensions. In a long line of countries, increasing the retirement age is being considered, or the decision to do so has already been taken.

At the Swedish Pensions Agency, we think it is good that the pension system is examined and discussed. One primary function of the Agency is to give all pension savers a clear picture of the pension that they can expect and the way their pensions are affected by different choices in life. Four out of ten pension savers, however, find the pension system hard to understand, and three have no opinion on this question. Only the remaining three think that the pension system is relatively easy to grasp.

It is hardly remarkable that people find the issue of pensions complicated. The debate over pensions is usually about particular features of the system such as balancing and the direct financial consequences per month for pensioners and pension savers. More rarely is the focus on the pension as a whole and how to affect it. In addition, there is a saving market that benefits from the widespread conception of pensions as complicated and difficult to foresee, and uses this situation to advantage in their marketing.

You who are reading the Orange Report probably belong to the three out of ten who find the system relatively easy to comprehend. The Report is a good reference book on Sweden's national pension. In the introduction we have highlighted some interesting facts that can be found in

the Report. A quick overview is provided in the *Financial Development of the Income-Based Pension System in Seven Minutes*, on pages 38–40. For a description of the rules of the national pension plan, see pages 4–9.

But for almost everyone, pensions should not be hard to understand. At a basic level, all you need to know is that you will receive a higher pension if you work for many years, pay taxes on your income and have an occupational pension. Almost everyone will find a good projection of the effects on the amount of their monthly pension at minpension.se; the same service is provided at the website of the Swedish Pensions Agency. It's as easy as that.

Katrin Westling Palm
Director General



Did you know this about pensions?

The Orange Report is an "encyclopedia" of facts for anyone interested in the Swedish Pension System

Surplus in the pension system

The surplus of the pension system was SEK 103 billion as of December 31, 2010. Last year's deficit has now turned to surplus. The balance ratio for 2012 is 1.0024 and will increase the indexation of the inkomstpension at the end of 2011 by 0.24 percent. *See "Orange Report 2010 in 7 Minutes"*

We live longer each year. That's nice, but we pay a price

Compared to 2009, the average expected pension payout duration for a 65-year-old (economic life expectancy) is 42 days longer, increasing the pension liability by SEK 25 billion.

See page 39

SEK 7,366,710,000,000

That's how much we owe today's and tomorrow's pensioners. It is roughly 2.5 times the value of everything produced in Sweden in one year. *See page 42*

More minus than plus

In 2010 the inflow of pension contributions to the inkomstpension system was SEK 205 billion. The expenditure of the inkomstpension system thus again exceeded its contribution revenue. According to forecasts, this deficit will continue until 2042. *See page 42*

Pensions from three sources

Three fourths of all pensions paid in Sweden come from the national pension system, one fifth consists of occupational pensions, and the rest is provided by private pension insurance. *See back page*

Low ceiling on pensionable income

For men, 19 percent have incomes above the income ceiling of SEK 34,365 per month in the national pension system. For women, 7 percent have incomes above the ceiling.

Page 35, inside of fold-out

A quarter of your income

Each year we pay about 28 percent of our incomes in contributions toward our future pensions. *See back page*

Average individual's pension account: SEK 733,138

That is the balance of the average pension saver's pension account. *See page 36*

Premium pension funds up 12 percent

The average return for a premium pension saver with fund insurance was 12.3 percent in 2010.
See "Changes in the Value of the Pension System"

National Pension Funds: + 8 percent

The National Pension Funds earned an average return of 8.2 percent in 2010. *See page 39*

SEK 700 per year

Managing the pension system cost each pension saver and pensioner SEK 700 – a total of SEK 5.0 billion per year.
See "Costs of Administration and Capital Management"

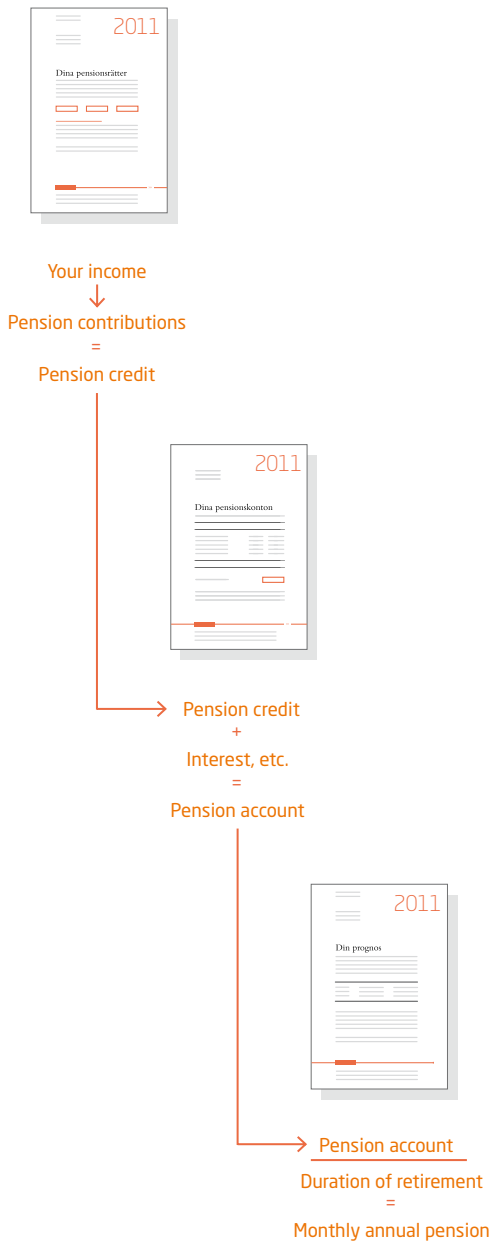
Q: When should I retire?

A: If you were born in 1960, you should wait until the age of 67 years and 2 months if you want a pension as high as your parents'. By comparison, if you turn 65 in 2010, you will need to postpone retirement until you reach 66 years and 3 months in order to receive an equally large national pension.
See page 30

18 years and 3 months

That's how long your pension is expected to be paid if you were born in 1945 and begin drawing a pension this year.
See page 30

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

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	75.8	6.5	2.3	0.8	0.3	0.3
1940	3.0	2.1	2.5	3.1	75.9	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	
1942	3.4	2.9	3.4	3.9	71.0	6.2	3.4	1.2		
1943	4.0	3.1	3.6	5.3	66.7	7.1	4.4			
1944	4.7	3.4	4.8	6.0	63.7	7.9				
1945	5.2	4.3	5.3	6.2	62.6					
1946	6.1	4.8	5.5	6.8						
1947	6.4	4.7	6.0							
1948	6.0	4.9								
1949	5.8									

* The proportions are for new retirees in relation to the potential number of retirees as of December 2010. Ages are as of December 31 of the year when the pensioner began drawing an inkomstpension/guaranteed pension.

unemployment 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 383,250 in 2010). Pension credit is earned at 16 percent of the pension base for the inkomstpension and 2.5 percent for the premium pension.¹

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.

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.

² For 2010, $8.07 \times 51,100 = \text{SEK } 412,377$

³ For 2010, $0.423 \times 42,400 = \text{SEK } 17,935$.

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

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 13.9 million in 2010; see Note 1, Table A.

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 2010 was SEK 70,901.

⁶ $0.1721/0.93 \approx 0.185$

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.

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.

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 not chosen a fund, their moneys will be invested in the Seventh National

Pension Fund, Sâfa, the government pension management alternative based on birth cohorts, which has a generation-fund profile. At the end of 2010, there were 789 funds in the premium pension system, administered by 94 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, 2010

	Number of registered funds, 2010	Managed capital, December 31, billions of SEK				
		2010	2009	2008	2007	2006
Equity funds	573	214	179	105	163	141
Mixed funds	60	17	12	10	10	9
Generation funds	36	43	38	29	35	31
Interest funds	119	24	21	24	13	7
AP7Sâfa/ Premium Savings Fund ¹	1	110	90	63	87	79
Total	789	408	340	231	308	267

¹ The Premium Savings Fund was replaced by AP7 Sâfa from May 2010.

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. Since 2000, the average rate of return (income index/balance index) in the inkomstpension system has been 2.5 percent. The premium pension index has been 1,4 percent during the same period.

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.

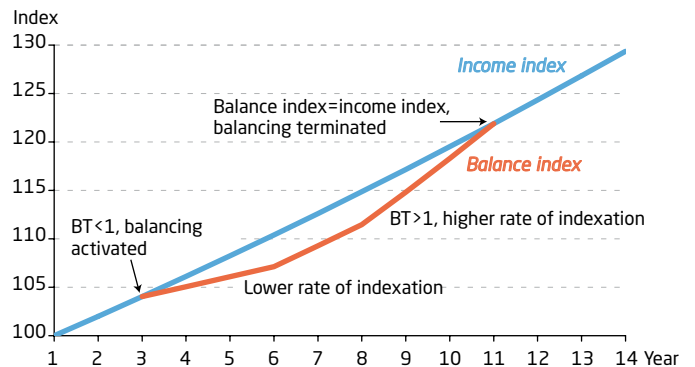
The assets of the system divided by the pension liability provides a measure of its financial position, a ratio referred to as the balance ratio. If the balance ratio is greater than the number one, assets exceed liabilities. If the balance ratio is less than one, liabilities exceed assets, and balancing 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.⁸ Indexation of pensions is reduced to the same extent.

⁸ 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.

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.

Balancing



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 0.50 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 less the interest of 1.6 percentage points credited in the annuity divisor,⁹ so-called adjustment indexation. This means that if income 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 by exactly 1.6 percent more than inflation. If, for example, incomes increase by 2 percent

⁹ It is somewhat misleading to state “minus”; the inkomstpension is recalculated by the ratio between the new and the old income index, divided in turn by 1.016.

more than inflation, pensions will increase by 0.4 percent in constant prices. If incomes increase by 1 percent more than inflation, then pensions will decrease by 0.6 percent in constant prices. When balancing has been activated, the balance index replaces the income index in the indexation of pensions.

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.

Guaranteed Pension¹⁰

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.

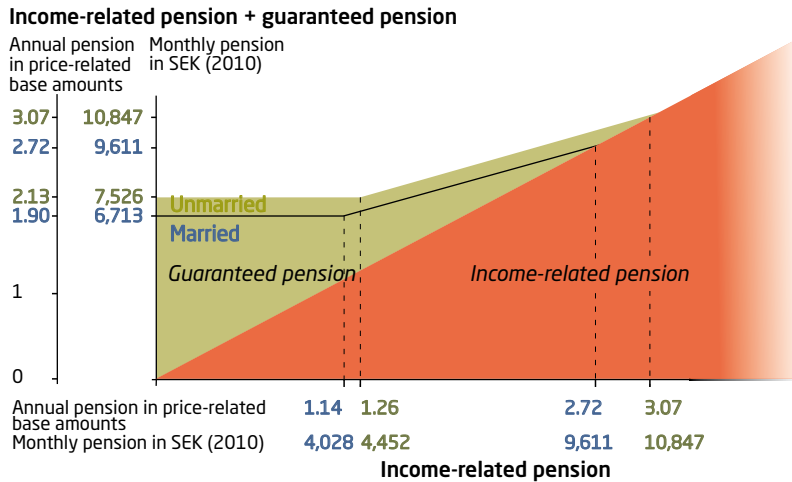
In 2010 the maximum guaranteed pension for a single pensioner was SEK 7,526 per month (2.13 price-related base amounts¹¹) and for a married pensioner, SEK 6,713 per month (1.90 price-related base amounts). The guaranteed pension is reduced for persons with an earnings-related pension. The reduction is 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 10,847 or more received no guaranteed pension in 2010. For a married pensioner the corresponding income limit was SEK 9,611.

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

¹⁰ These provisions concern the guaranteed pension for persons born in 1938 or later. For older individuals, other rules apply.

¹¹ In 2010 the price-related base amount was SEK 42,400.

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,"¹² that is, against revenue or as a lower return on funds, are not shown directly in the income statement of the pension system.

¹² 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. On the other hand, the costs reported net by the National Pension Funds are not included in the costs deducted from the pension account, and normally¹³ the indexation of pension capital and pensions is not affected, either. 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.

¹³ Only when balancing is activated do the costs of the National Pension Funds reported net affect indexation of pensions.

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 5.0 billion, of which SEK 2.2 billion is reported in the income statement of the pension system. The SEK 2.2 billion is the sum of the costs of insurance administration (1,375 million) and the operating expenses of the National Pension Funds (820 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 2010 were SEK 1,849 million, of which 1,029 million are for insurance administration and SEK 820 million are for operating expenses of the National Pension Funds. This amount (1,849 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 820 million in operating expenses, the National Pension Funds had fixed management fees of SEK 477 million. The sum of reported capital management costs shown in the income statements of the National Pension Funds was thus SEK 1,297 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 National Pension Funds paid

SEK 368 million in performance-based fees and SEK 186 million in brokerage and other transaction costs. When these costs and charges are included, the total costs of the inkomstpension are SEK 2,880 million.

The Swedish Pensions Agency's income statement of the premium pension system shows administrative costs of SEK 339 million. That sum does not include SEK 7 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 346 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 1,141 million, and rebates were SEK 1,943 million, the fee before rebates was SEK 3,084 million. In addition to the SEK 1,141 million in fixed management fees, the sum of capital-management expenses and charges consist of SEK 663 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)	402	63	465
Pension administration	627 *	283	910
Total, insurance administration	1,029	346	1,375
Operating expenses of the National Pension Funds (reported gross)	820		820
Fixed management fees (reported net)	477	1,141	1,618
Total reported capital management costs	1,297	1,141	2,438
Performance-based fees**	368		368
Transaction costs***	186	663 ****	849
Total capital management costs and charges	1,851	1,804	3,655
Total costs	2,880	2,150	5,030

* 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/Swedish Social Insurance Agency

The income statement of the pension system includes the compensation that National Pension Funds are required to provide to the Swedish Pensions Agency/Swedish Social Insurance 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 reported by the Swedish Pensions Agency/Swedish

Social Insurance 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

	2006	2007	2008	2009	2010
Opening balance	139	312	302	66	91
Compensation decided*	794	514	257	544	627
Cost outcome!**	622	524	493	519	568
Net income/-loss	172	-10	-236	25	59
For the year Closing balance	312	302	66	91	150

* 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, 2006-2010

To provide a perspective on costs, the tables and the diagram below show cost items for each year beginning with 2006. 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 2006-2010, Millions of SEK

IP = inkomstpension, PP = premium pension

		2006	2007	2008	2009	2010
Collection of contributions, etc. (National Tax Board)	IP	403	287	353	378	402
	PP	63	45	55	59	63
Pension administration	IP*	622	524	493	519	568
	PP	272	273	382	284	283
Total, insurance administration	IP	1,025	811	846	897	970
	PP	335	318	437	343	346
Operating expenses of the National Pension Funds (reported gross)	IP	700	752	778	808	820
	PP	-	-	-	-	-
Fixed management fees (reported net)	IP	526	546	498	489	477
	PP	892	924	758	829	1,141
Total reported capital management costs	IP	1,226	1,298	1,276	1,297	1,297
	PP	892	924	758	829	1,141
Performance-based fees	IP	146	257	294	170	368
	PP	-	-	-	-	-
Transaction costs**	IP	424	435	407	208	186
	PP	537	713	592	565	663
Total capital management costs and charges	IP	1,796	1,990	1,977	1,675	1,851
	PP	1,429	1,637	1,350	1,394	1,804
Total costs	IP	2,821	2,801	2,823	2,572	2,821
	PP	1,764	1,955	1,787	1,737	2,150

* 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 risen in the past year. The increase has been primarily in performance-based fees. It is also shown that capital management costs and charges went up for the premium pension. This is due mainly to an increase in average capital managed.

In order to compare the size of costs in relation to the "capital" from which the costs are deducted, the amount of the pension liability is shown in the table.

Pension Liability/Capital from Which Cost Deduction Was Taken, 2006-2010, Billions of SEK

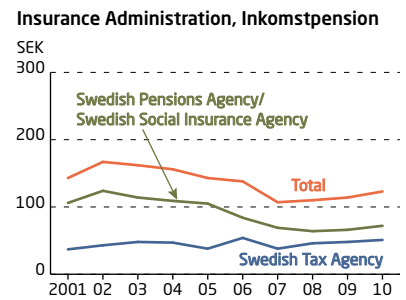
		2006	2007	2008	2009	2010
Pension liability from which cost deduction was taken	IP*	4,751	4,910	5,157	5,002	4,795
	PP	269	310	233	343	346

* 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.

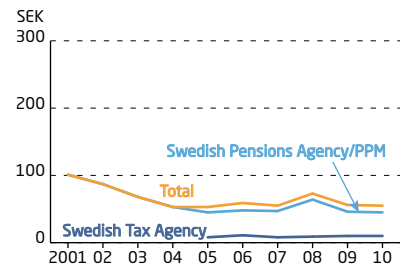
Capital Management Costs in Relation to Capital Managed

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 2010 the total capital management costs for these funds and for the much smaller Sixth National Pension Fund was 0.16 percent of the capital managed. The performance-based fees of the National Pension Funds were 0.04 percent, and transaction costs were 0.02 percent. Consequently, total capital management costs and charges amounted to 0.22 percent of the capital managed. The capital management costs reported for the much smaller and more numerous funds in the premium pension system were 0.32 percent, transaction costs were 0.19 percent; the total of capital management costs and charges was thus 0.51 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 38 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 7 percent of assets are invested in such assets.

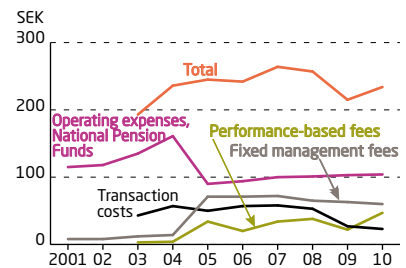
Cost per insured, 2001-2010, SEK



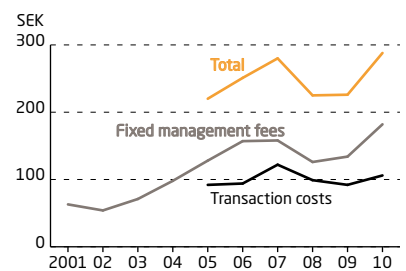
Insurance Administration, Premium Pension



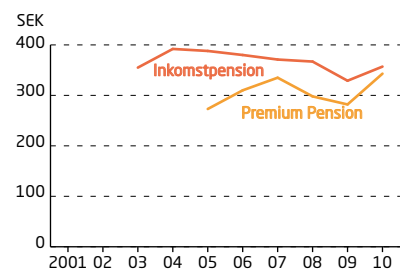
Capital Management Costs and Charges Inkomstpension



Capital Management Costs and Charges Premium Pension



Total Costs



Capital Management Costs in Relation to Capital Managed, 2006-2010, Percent

		2006	2007	2008	2009	2010
Operating expenses of the National Pension Funds (reported gross)	IP	0.09	0.09	0.10	0.11	0.10
	PP	-	-	-	-	-
Fixed management fees (reported net)	IP	0.06	0.06	0.06	0.06	0.06
	PP	0.40	0.33	0.30	0.31	0.32
Total reported capital management costs	IP	0.15	0.15	0.16	0.17	0.16
	PP	0.40	0.33	0.30	0.31	0.32
Performance-based fees	IP	0.02	0.03	0.04	0.02	0.04
	PP	-	-	-	-	-
Transaction costs	IP	0.05	0.05	0.05	0.03	0.02
	PP	0.24	0.25	0.23	0.21	0.19
Total capital management costs and charges	IP	0.22	0.23	0.25	0.22	0.21
	PP	0.64	0.58	0.53	0.52	0.51
Average capital managed* (Billions of SEK)	IP	814	878	803	767	861
	PP	226	284	254	270	353

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

Actual Cost Deductions Taken, 2006-2010

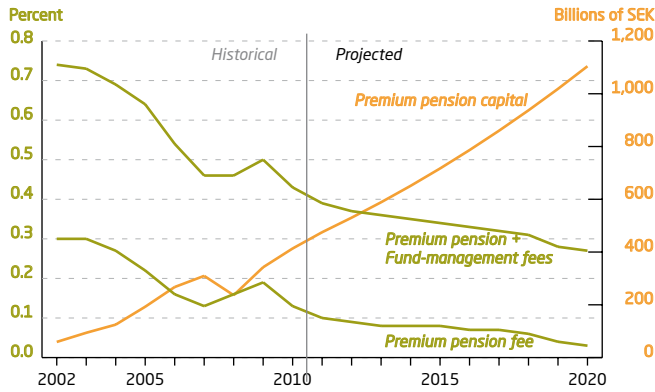
In 2010 the deduction from pension balances for costs was 0.0343 percent in the inkomstpension system. The deduction for costs is only done until pension disbursement begins. Neither the fixed management fees of 0.06 percent of capital managed, the performance-based fees of 0.04 percent of capital managed, 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 2010 the deduction for the costs of administration of the premium pension was 0.16 percent, calculated on the basis of the average capital managed in the premium pension system as of January 31, February 28, March 31 and April 30, 2010. Here the cost deduction continues even after pension disbursement begins. The average cost deduction by fund managers after rebates was 0.32 percent in 2010. In addition, there were transaction costs of approximately 0.19 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 0.16 percent to around 0.03 percent, rebates to pension savers are anticipated to increase.

Deductions for Costs, 2006-2010, Percent

	2006	2007	2008	2009	2010
IP	0.0312	0.0440	0.0226	0.0189	0.0343
PP, PPM	0.16	0.13	0.16	0.19	0.16
PP, funds	0.40	0.33	0.30	0.31	0.32
PP, total	0.56	0.46	0.46	0.50	0.48

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 2010

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 was activated 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. Thus, the inkomstpension credit earned by the gainfully employed has been reduced by these percentages at the beginning of each year.

For pensioners the inkomstpension and the supplementary pension 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”). In total, the inkomstpension and supplementary pension of retirees were lowered by 4.3 percent at the outset of 2011 after a reduction of 3.0 percent at the outset of 2010.

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 year 2010 was a good one, particularly for the Swedish stock market; as a consequence, the return for pension savers, measured as the internal rate of return, was 12.3 percent. For retirees, the average disbursement of premium pension for 2011 rose by 23 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, 2000–2010, Percent

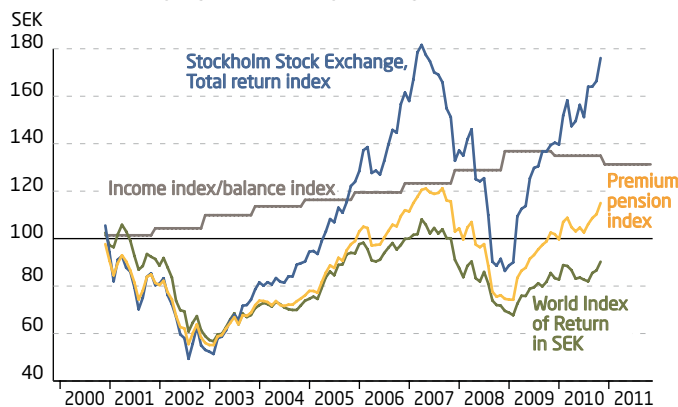
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Income-/balance index	1.4	2.9	5.3	3.4	2.4	2.7	3.2	4.5	6.2	-1.4	-2.7
Return, premium pensions*	0.7	-8.6	-31.1	17.7	7.9	30.5	12.2	5.3	-34.3	34.9	12.3

* 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. The developments in 2008 in recent years are 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 balancing at the outset of 2010 and 2011. 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 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 value of an amount invested at the end of 2000 has varied considerably over the years. For instance, the premium pension system has gone through two sharp stock-market downturns and two upswings: the downturn in 2000–2003, the upswing in 2003–2007, the downturn in 2007–2008 and the upswing in 2009–2010. At the end of 2010, the premium pension index had risen overall by 1.4 percent per year since the system began operating.¹⁴ This may be compared with the income index/balance index, which increased by 2.5 percent per year since 2000.

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 was also much more pronounced on the Stockholm Stock Exchange than in the premium pension index. The

¹⁴ The premium pension index measures how much an amount paid into the system at a certain point in time has changed over a certain period (the so-called time-weighted return). Individual pension savers have normally had a different average rate of return, depending not only on their investment profile, but also on the amount of capital individually invested at different points in time. This return is termed the internal rate of return or the capital-weighted return (see below).

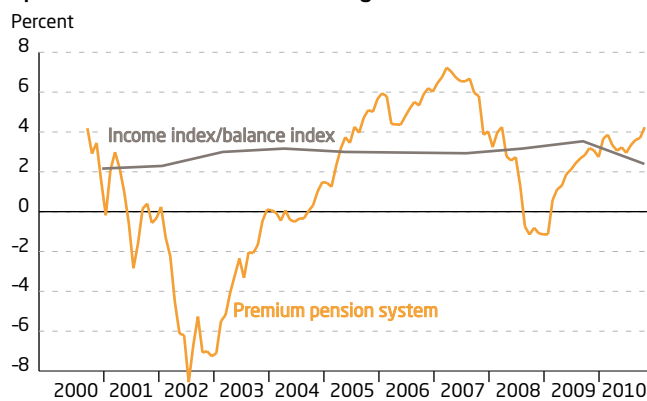
principal explanation for the different paths of development is that premium pension savers had invested primarily in foreign stocks. Moreover, some investments were in interest-bearing funds that provided a steadier return. Premium pension savers investing in foreign funds were somewhat adversely affected in 2010 by the stronger exchange rate of the Swedish krona.

Those who have refrained from selecting funds, and thus had their monies 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.

Changes in Value as Measured by the 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 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 internal rate of return, or the “capital-weighted” 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 Annual Internal Rate of Return for All Premium Pension Savers up to Different Points in Time during the Years 2000-2010



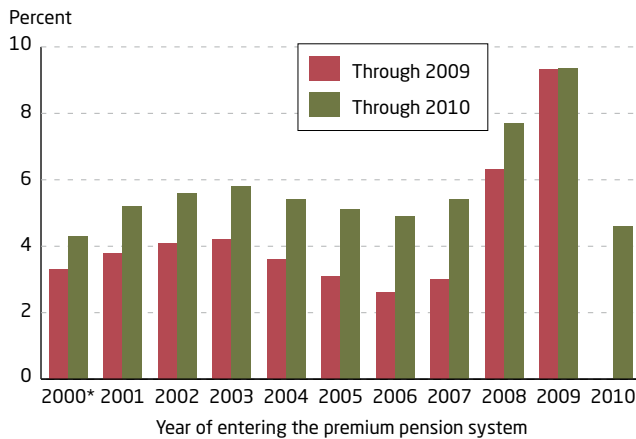
Each point on the curve shows the average annual internal rate of return (after 1995) until the time concerned

The diagram above shows the development of the internal rate of return in the premium pension system, together with a parallel calculation of the internal rate of return that pension savers would have obtained if their contributions to the premium pension had earned a return equal to the growth in the income index/balance index. By this measure, the internal rate of return through the end of 2010 would have been 2.2 percent per year. This may be compared with the actual internal rate of return for the premium pension: 4.2 percent through 2010.

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 index. Note that the curve does not show the actual internal 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 internal rate of return for pension savers by year of entry into the system. On average, all groups have reported a positive development in the value of their premium pension saving. The increases have been across the board, and there has been some reduction since the preceding year in the differences between groups. The greatest percentage change in 2010 was for savers who entered the system in 2006 and 2007.

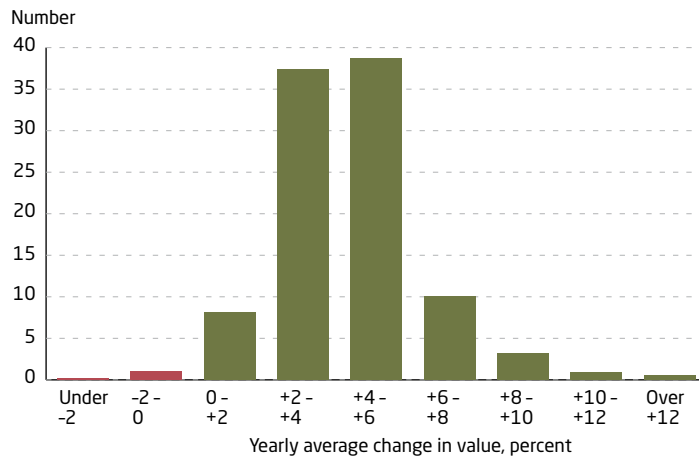
Average Internal Rate of Return per Year for Premium Pension Savers by Year of Entry into the Fund System



* 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 internal rate of return among pension savers who have been in the system for an equally long time. Of pension savers joining the premium pension system at its inception in 1995, about 99 percent had obtained a positive change in value through the end of 2010. Until the end of 2010, 15 percent had had a positive change in value, on an annual basis, of more than 6 percent. It may be noted that two years earlier, at the end of 2008, only 35 percent had benefited from a positive nominal change in 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 2010

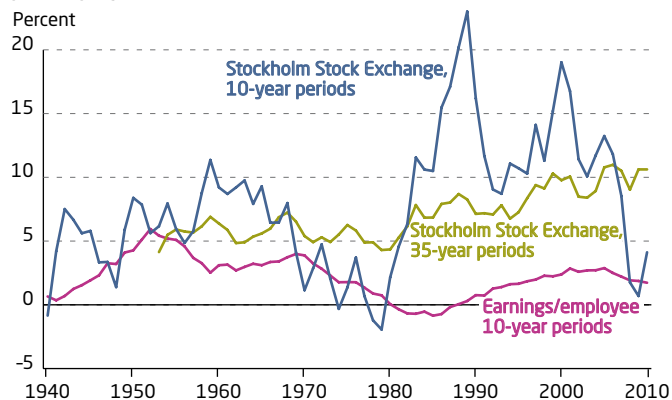


Since the data refer to participants since 1995, the reason for the considerable spread is to no extent that they entered the system at different times (compare the previous figure showing the distribution by year of entry). Rather, it is primarily the choice of fund investments with substantial differences 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. During the 92-year period from 1918 to 2010, the average real rate of return on the Stockholm Stock Exchange was 7.0 percent per year (a nominal return of 10.3 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, from 23 percent per year (1980–1989) down to negative figures in certain other periods. There have often been major changes between adjacent 10-year averages.

Real Rate of Return on the Stockholm Stock Exchange and Real Earnings per Employee in Sweden

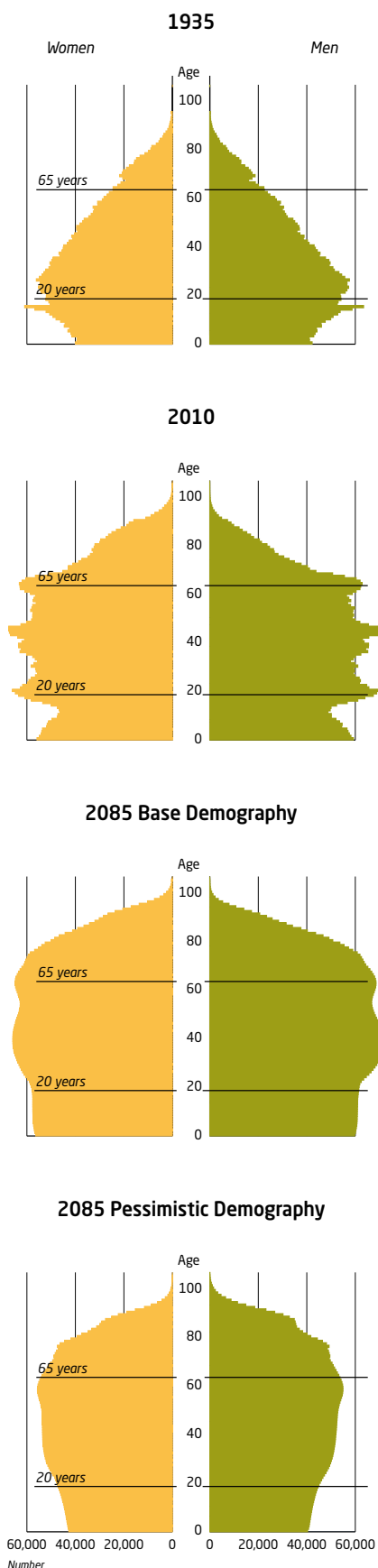


For each year the curves show the average real total return per year (incl. dividends) over the preceding 10 and 35 years, respectively, and the percentage change per year in real earnings per employee over the preceding 10 years.

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.

Only over a 35-year period is the real change in value for stocks reasonably comparable in stability to the development of 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 1918–2010 increased by 2.4 percent per year, much less than the real rate of return on stocks, which was 7.0 percent per year as just mentioned. The difference was greatest in the past two to three decades.

Population 75 years ago, at present, and in 75 years in the two demographic scenarios



Source: Statistics Sweden (SCB)

Three Scenarios for the Future of the Pension System

To show how different developments in the very long run can affect the financial position of the pension system and the level of pension benefits, projections are presented for the evolution of the system over 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 contribution revenue and pension disbursements of the system. With the net contribution expressed here as a percentage of total paid-in contributions, there is adjustment 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 2010, Billions of SEK

(1) Net contribution	-12.7
Contributions	207.5
Pensions	220.2
(2) Costs of administration etc., net	4.7
(3) Primary net lending (1) - (2)	-17.4
(4) Return	
Interest income	11.4
Dividends on shares	11.0
Net lending (3) + (4)	5.0

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 2010 the assets of the National Pension Funds increased by a total of SEK 68 billion, primarily because of the surge in share prices.

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 2010, 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 number of people of working age and the proportion of them who are gainfully employed or have some other pension-qualifying income for which a contribution is payable. The number of people of working age depends principally on net immigration and – in the longer run – on birth rates. In the base scenario and the optimistic scenario, use is made of the primary alternative of the population projection of Statistics Sweden in 2009. The pessimistic scenario is based on the low assumptions of Statistics Sweden in regard to net immigration and birth rates. As for the proportion paying contributions (equal in principle to labour force participation), there are no substantial differences among the scenarios.

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 growth in the **average income** of the gainfully employed has only a limited impact on the financial stability of the pension system. For by being linked to the income index, pensions follow the development of average income, and a change in average income will be paralleled by a change in the contribution inflow and in pension disbursements; thus there will be no effect on the net contribution – in theory. 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

Base Scenario

The demographic development in the base scenario follows the population forecast of Statistics Sweden from 2009. In this projection the birth rate is assumed to be 1.83 children per woman during the period through 2025, with nativity then dipping slightly but never below 1.82 children per woman. In 2009 the average life span for men was 79 years; it is expected to increase to 84.2 years in 2050. For women the average life span is expected to increase from 83 to 86.5 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, because of the temporary asylum law, net immigration was 50,000 persons, and net immigration was high in 2007 and 2008 as well at about 54,000 persons. For the initial years of the projection until 2015, it is assumed that net immigration will be high. After 2015, net immigration will decline continually to 18,000 in 2085. The proportion of persons aged 16-64 with an income

over one (1) income-related base amount is assumed to remain in the long run at a level around 88 percent. 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 are the same as in the base scenario; the scenarios differ only in regard to economic factors. The real growth in average income is 2.0 percent after 2010, and the real rate of return on the buffer fund is 5.5 percent. 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.

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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 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 both for fund strength and the balance ratio is the level of the return in relation to average income. The reason is that both pension disbursements and the pension liability of the system grow at the rate of increase in average income, while the market value of the National Pension Funds is included in the numerator in both the measure of fund strength and the balance ratio.

Assumptions for the Long Term, Summary

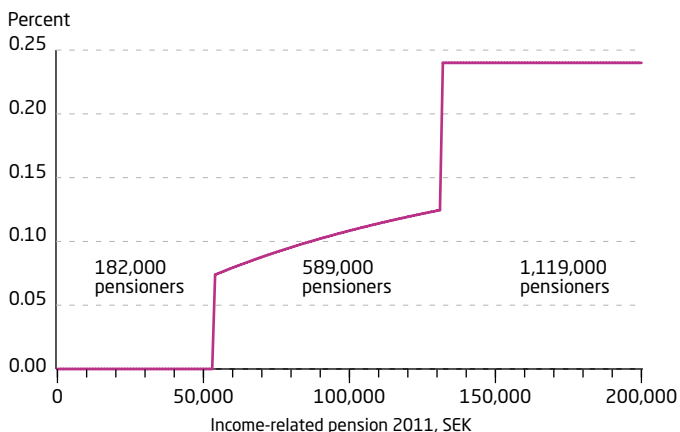
Percentage growth per year through 2085

	Base	Optimistic	Pessimistic
Number paying contributions	0.1	0.1	-0.2
Real average income per person	1.8	2.0	1.0
Return on capital (National Pension Funds and premium pension), real	3.25	5.5	1.0

As noted above, the results of the projections are reported as estimates of net contribution, size of the buffer fund and the balance ratio. In summary, it may be said that in all three scenarios, the net contribution is negative starting in 2009 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 exhaustion of the buffer fund is due to a smaller working-age population and to a low return on the buffer fund in this scenario.

The financial position of the pension system deteriorated in 2009 and 2010 – see the section "Orange Report in Seven Minutes". In 2010, balancing was activated for the first time. The balance ratio for 2012 is calculated at 1.0024, which will result in a further addition of 0.24 percent to the inkomstpension and the supplementary pension. To some degree, the increase will reduce any guaranteed 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.

Effect of Balancing on the Total Pension in 2012



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 1.65 children per woman. Net immigration is assumed to average 17 000 persons per year in the years until 2015 and 15 000 per year thereafter. The birth rate and migration follow the low assumptions of Statistics Sweden in the population project from 2007. The average life span develops as in the other two scenarios. 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. The real rate of return on the buffer fund and on premium pension funds, after costs of administration, is also 1 percent. With a return equal to the increase in average income, the return on the buffer fund provides no contribution, 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.

Finally, this section includes a discussion on the calculation of pension levels and replacement rates. The projected pension levels have been supplemented by the replacement rates in each individual's Orange Envelope. These replacement rates have been calculated by dividing the projected pension of individuals at age 65 by their own income.

Net Contribution

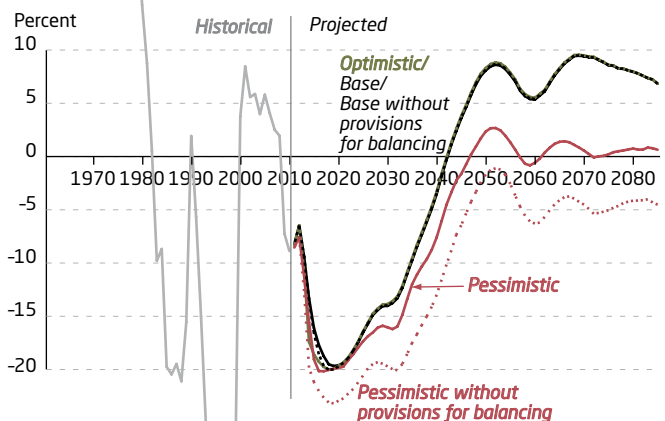
The size of pension disbursements depends on the rules of the system and on how these interact with demographic and economic developments. Since the birth cohorts in the population differ in size and have worked to somewhat differing degrees, the contribution revenue and pension disbursements of the system will vary over time. To permit comparison of the net contribution – that is, the contribution inflow minus pension disbursements – in the three scenarios, the net contribution has been divided by the inflow of contributions in the respective 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 levied were greater than the initially modest pension disbursements; as a percentage of contributions, the surplus was substantial. 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 2043 revenue will exceed expenditure in the base and optimistic scenarios. In the pessimistic scenario, however, the net contribution will remain negative until 2046.

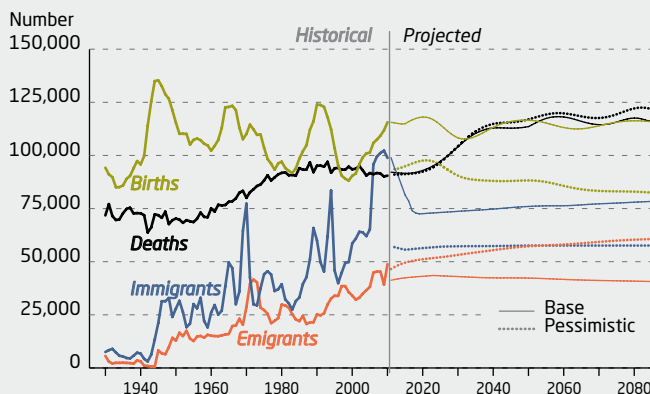
Net Contribution

Contribution revenue less pension disbursements as a percentage of contribution revenue



Description of the Assumptions in the Scenarios

Births, deaths, immigration and emigration, 1935-2010, and assumptions through 2085



The diagram shows the growth of the population for the past 75 years and the assumed growth in 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 demographic conditions are the same in the base and optimistic scenarios.

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The Buffer Fund

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.

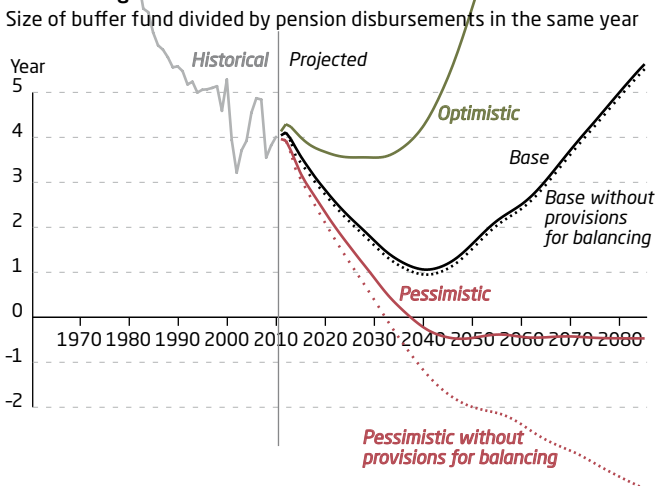
Historically, fund strength has been high. As the number of ATP pensioners has increased, however, fund strength has diminished. On average, fund strength has been four to five years since 1990. At the end of 2010, fund strength was 4.1 years.

In the base scenario the contribution deficit leads to a slow decrease in fund strength. Fund strength reaches its low point in 2041, when it is equivalent to slightly less than 0.95 year of disbursements.

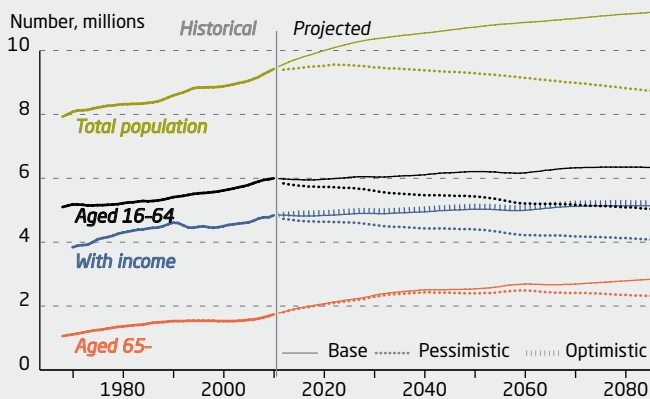
In the optimistic scenario, there is strong growth in fund strength. This is explainable by a high return on the fund in relation to the development of average income, which permits the system to sustain a major contribution deficit. In 2050 the size of the fund is equivalent to nearly seven years of pension disbursements, and in 2060, to more than 10 years of pension disbursements.

In the pessimistic scenario, the buffer fund is exhausted by 2038 and thereafter slightly negative, despite the balancing that occurs within the system. The main reason why it is negative¹⁵ is that a constant population is assumed in the calculation of turnover duration. With a decreasing trend in the working-age population, this assumption means that turnover duration will be somewhat overestimated. The design of balancing in a way that does not eliminate the risk of exhausting the buffer fund represents a deliberate choice. This risk has been managed by giving the funds the right to borrow money. Any borrowing is to be done through the National Debt Office.

Fund Strength



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.

When the assumed population decrease has come to a halt, the buffer fund will be guided toward fund strength of at least zero. In the years when the fund is negative, interest will be paid on the loans. In the diagram, the interest on these loans, taken via the National Debt Office, is assumed to be of the same magnitude as the assumed return in the scenario, that is, 1 percent.

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 – that is, when assets are twice as great as liabilities – means that in principle the system is fully funded.

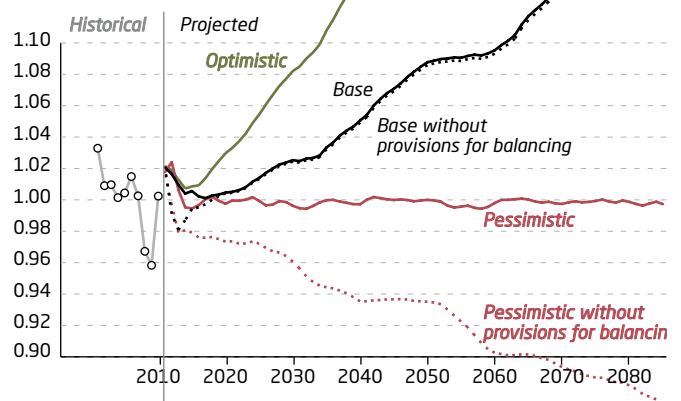
In the base scenario the balance ratio varies around 1.0 until 2020; the variations are greatest at the outset of the period, with a gradual decrease thereafter. Thereafter, the balance ratio strengthens successively on account of demographic factors and a yield on the buffer fund that is better than the income index. Around 2063 the balance ratio reaches 1.1, a level which as proposed by the government report *Utdelning av överskott i inkomstpensions-systemet* (Distribution of Surpluses in the Inkomstpension System), SOU 2004:25, means that there is a distributable surplus. However, no provisions to this effect have been enacted by the Swedish Parliament.

In the optimistic scenario the balance ratio increases continually. With the high return the buffer fund strengthens. From 2035 on, the balance ratio exceeds 1.1.

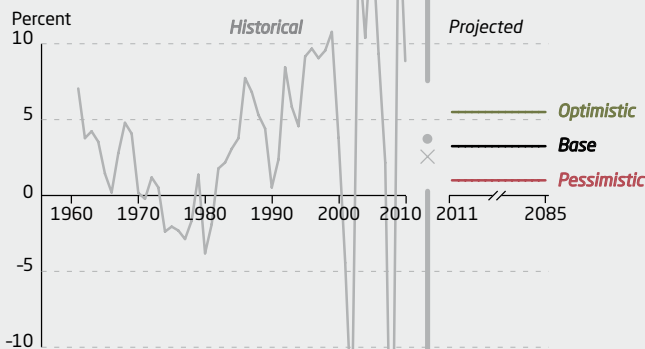
In the pessimistic scenario balancing remains activated in the system. The explanation lies partly in poorer population growth and partly in the low return of the buffer fund. As a result of balancing, the interest on the liability of the system is the same as the rate of growth in system assets. For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

Balance Ratio

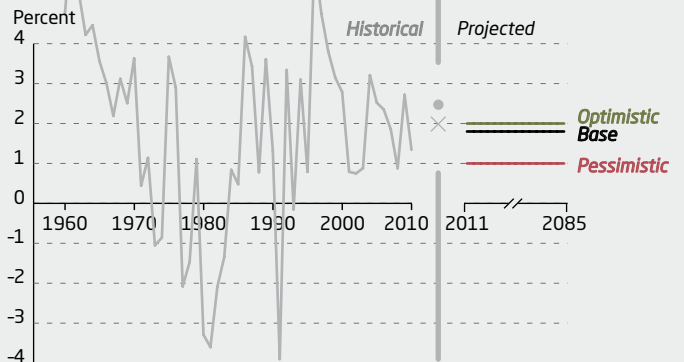
(Contribution asset + buffer fund) / pension liability



Real Return on the Buffer Fund, 1960-2010, and Assumptions until 2085



Real Growth in Earnings, 1960-2010, and Assumptions until 2085



- █ Max
- █ 75th percentile
- 50th percentile (median)
- × Geometric mean
- █ 25th percentile
- █ Min

Three Scenarios for the Future of the Pension System

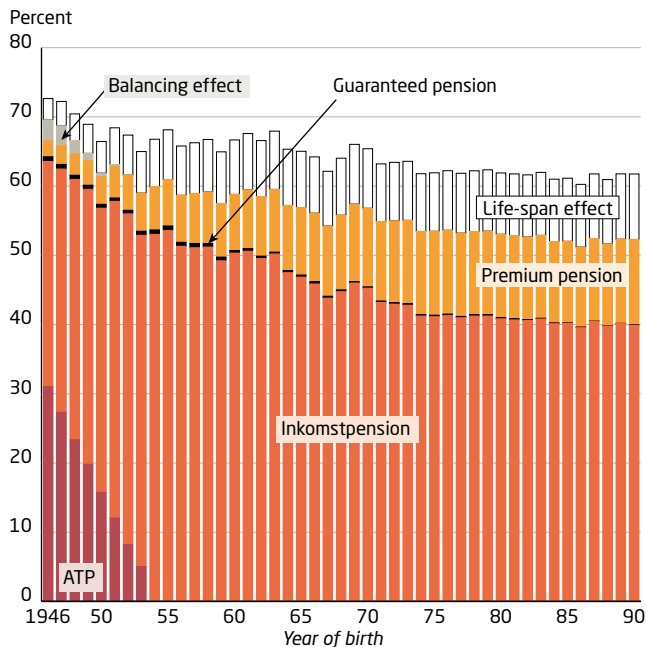
Average Income and Pension, Base Scenario (Price level 2010)

Amounts in SEK

Year of birth	Pension at age 65	Average income	Pension level, percent
1945	12,100	18,400*	66
1965	14,500	25,600	57
1990	20,800	38,800	52

* An average monthly income for full-time work is about SEK 28,000 (according to the Wage Structure Statistics of Statistics Sweden for 2009, revised upward by the growth of average hourly earnings in 2010. The reason why average income is lower than this amount is that the calculation of average income includes all persons aged 16–64 - whether or not they have had any income in the year concerned. The only requirement for inclusion in the calculations is that the individual at age 65 has had at least 30 years of pension-qualifying income. Inclusion of individuals with part-time or seasonal employment lowers both average income and pensions. The exclusion of incomes above the ceiling from average income reduces the latter by about 10 percent.

Average Pension at Age 65 as a Percentage of Average Income, Base Scenario



Development of Pension Levels for Different Birth Cohorts

The pension level is defined here as the average national pension benefit at age 65 in relation to the average pension-qualifying income for persons aged 16–64 with such income. For this level to be constant, one requirement is a roughly constant relationship between the number of economically active years and years of retirement. If this condition is to be satisfied at the same time as life expectancy is increasing, either the retirement age must be raised, or the age of entry into working life must be lowered. Moreover, for the value of pensions to remain constant in relation to incomes, balancing must not be activated.

In the scenarios, the average national pension at age 65 as a percentage of average income is shown in the following bar graphs, one for each scenario.

In the base scenario, the average pension level for the year when the individual turns 65 drops from 66 percent for birth cohort 1946 to approximately 52 percent for birth cohort 1990. Approximately 9 percent of this decrease will be due to the expected increase in the average life span. As for the remainder of the decrease, one explanation is that the calculations are for persons with 30 years or more of working life in Sweden. In relation to the new system, the ATP system is especially generous to persons who have worked only 30 years. If working life is prolonged to neutralize the effect of longer life expectancy on pension levels, the pension level stabilizes at just above 60 percent of average income. A longer working life also increases pensions through the pension credit earned in the additional years. Of the total increase in life expectancy, therefore, about 67 percent should be added to years of working life while 33 percent can be added to life as a pensioner with an unchanged pension level. The table on page 30 shows the effect of the longer life span on the retirement age required to maintain the same level of pensions as for older birth cohorts.

Other Assumptions in the Calculations

The assumptions in the scenarios apply from and including 2012. For the year 2011 the forecast of the National Institute of Economic Research (NIER) in December 2010 applies. The scenario assumptions apply to the return on the fund as from 1 January 2011. The guaranteed pension is price-indexed. Consequently, the lowest pensions will gradually decrease in relation to average income, as will the tax component of the pension contribution for individuals with modest incomes. The effect over the 75-year period is very powerful. With a 1.8 percent annual increase, average income in 2085 is nearly four times what it was in 2010. 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 designed 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.

The relationship between the return of the premium pension system and the growth in average income affects the relative size of the premium pension. The greater the positive difference between the rate of return and the rate of growth, the larger the share provided by the premium pension. In the base scenario, the return of 3.25 percent for the premium pension system exceeds the assumed rate of growth in average income, which is 1.8 percent. As a result, the premium pension accounts for a disproportionately large share of the national pension in relation to the corresponding contributions.¹⁶ For the youngest birth cohorts, the premium pension is about 12 percent of average income, and the inkomstpension is about 41 percent.

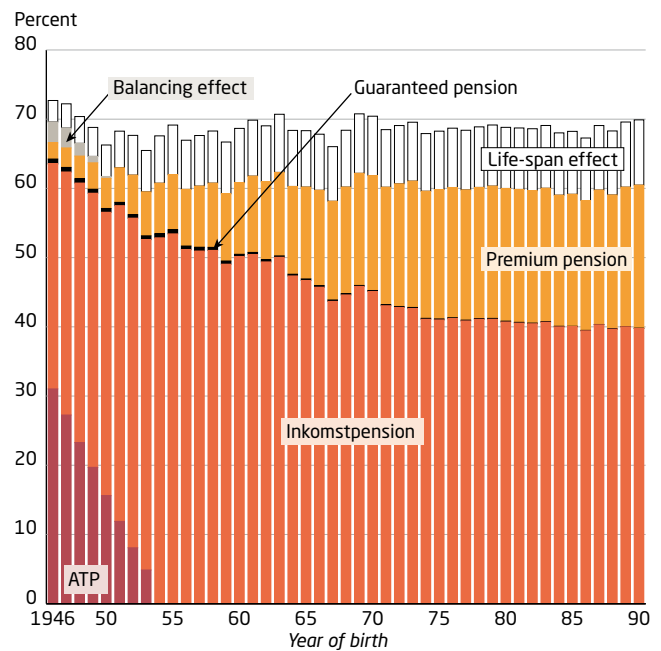
¹⁶ Another reason why newly granted premium pensions are relatively greater is that the interest credited in the annuity divisor is higher for the premium pension than for the inkomstpension; see the section "How the National Pension Works" and Appendix A.

In the base scenario, the guaranteed pension for persons who have worked at least 30 years is small from the very beginning. Since the guaranteed pension is assumed to be unchanged in constant prices, its significance, in principle, decreases with each year of growth in incomes. From time to time, however there is a deviation from this tendency because of balancing.

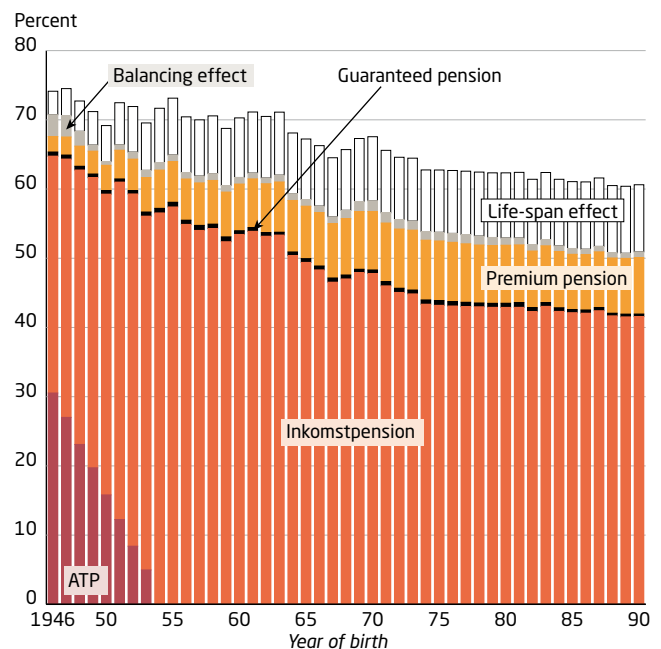
The pension level of a birth cohort in relation to average income at age 65 is affected by whether balancing is activated. The period of balancing beginning in 2010 will thus affect pension levels at age 65, especially for birth cohorts 1946–1949. The level of their pensions at age 65 will be roughly 3 percent lower in relation to average income. The negative effect of balancing on a newly granted pension will thereafter diminish gradually, disappearing entirely for those who retire after 2018.

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.

Average Pension at Age 65 as a Percentage of Average Income, Optimistic Scenario



Average Pension at Age 65 as a Percentage of Average Income, Pessimistic Scenario



Life Expectancy Effect and the Required Retirement Age

The table shows the effect of the continued increase expected in the average life span compared with birth cohort 1930, which reached age 65 at the time of the decision on the principles for reforming the pension system. It is assumed by Statistics Sweden that the average life span will increase rather substantially in the years ahead. As a consequence, remaining life expectancy at age 65 will rise from 17 years and 5 months for persons born in 1930¹⁷ to 22 years and 3 months for those born in 1990. This is equivalent to an increase in life expectancy of 4 years and 10 months for birth cohort 1990 relative to birth cohort 1930. If those born in 1990 are to have the same monthly pension level as those born in 1930, a portion of the anticipated increase in remaining life expectancy at age 65 must be spent working further. For birth cohort 1990 the duration of working life must be increased by 3 years and 4 months if this cohort is to receive a pension at the same replacement rate as persons born in 1930. At the same time, those born in 1990, despite the higher retirement age, can look forward to being pensioners for 1 years and 11 months longer than persons born in 1930.

The first birth cohort with a retirement age of 65 was born in 1911. When this cohort reached age 65 in 1976, the normal retirement age was lowered from 67 to 65. At that time the expected duration of their retirement was roughly 16 years, that is, about 1 year and 5 months less than for birth cohort 1930.

¹⁷ No annuity divisors have been set for birth cohort 1930, whose initial pensions were calculated entirely by the rules of the ATP system.

Life Expectancy and Retirement Age*

Birth cohort born in	..reaches 65 in	Life expectancy at 65	Retirement age required	Time spent retired**	... compared to birth cohort 1930
1930	1995	82 yr 5 mo	65 yr	17 yr 5 mo	0
1940	2005	83 yr 7 mo	65 yr 9 mo	18 yr	+6 mo
1945	2010	84 yr 3 mo	66 yr 3 mo	18 yr 3 mo	+9 mo
1950	2015	84 yr 9 mo	66 yr 7 mo	18 yr 5 mo	+1 yr
1955	2020	85 yr 2 mo	66 yr 11 mo	18 yr 7 mo	+1 yr 1 mo
1960	2025	85 yr 7 mo	67 yr 2 mo	18 yr 10 mo	+1 yr 4 mo
1965	2030	86 yr	67 yr 5 mo	18 yr 11 mo	+1 yr 6 mo
1970	2035	86 yr 3 mo	67 yr 8 mo	19 yr	+1 yr 6 mo
1975	2040	86 yr 7 mo	67 yr 10 mo	19 yr 2 mo	+1 yr 9 mo
1980	2045	86 yr 10 mo	68 yr	19 yr 3 mo	+1 yr 9 mo
1985	2050	87 yr	68 yr 2 mo	19 yr 4 mo	+1 yr 11 mo
1990	2055	87 yr 3 mo	68 yr 4 mo	19 yr 4 mo	+1 yr 11 mo

* The calculations show the retirement age required if the rules of the new system are fully applied. The required retirement age for birth cohorts 1940-1950 is thus overstated.

** Time spent retired is calculated as life expectancy at the required retirement age.

Remarks on the Pension Level 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.

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 profile¹⁸ is used, it is natural to compare the size of the pension benefit with the income of the individual in the year before retirement.

If a concave¹⁹ income profile 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.

In calculations of the pension level in this chapter, the question of the income with which to compare a pension at age 65 has been handled differently. Here a pension is compared with the average income for all individuals in the calculation who are between the ages of 16 and 64. One reason for this approach is that it reduces the sensitivity of the pension level to assumptions about income profile. The comparison income chosen, however, has the obvious shortcoming that the pension level calculated says nothing, in principle, about the change in income that may be expected when the individual begins to draw a pension. Therefore, the concept of pension level is used here to emphasize that what is shown is not a compensation rate.

The fact that the pension level as defined above in principle provides no information on the change in income at retirement does not prevent it from yielding such information in practice. The reason is that the average pension-qualifying income (PQI) for persons aged 16–64 is very close to the average PQI for persons aged 60–64. It does not matter much for the outcome which definition is used. Thus, the pension level calculated here is very similar to the compensation rate that would have resulted if the average income of each individual at ages 60–64 had been used as the comparison income.

For the pension levels shown, persons with fewer than 30 years of income of at least one income-related base amount at age 65 are excluded from the calculation of the average pension and average income. The reason is that the pension level is intended to reflect conditions for individuals who have spent most of their working life under this pension system.

Another question is whether to include incomes not insured in the national pension system in the calculation of the comparison income. Here we have chosen to include only income insured in the national pension system. Of all pension-qualifying income in Sweden, roughly 10 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. In 2009 pensioners were given tax relief in the form of an increased basic tax deduction. In 2010 pensioners received a further tax cut. Of pension-qualifying incomes under the income ceiling, roughly 94 percent are from gainful employment. With the enactment of the tax credits,

¹⁸ A straight-line income profile means that for all ages in the labour force income grows at the same rate as the general rate of increase in incomes until retirement age is reached. A straight-line profile thus means that all persons are assumed to have the same growth in income each year until they retire.

¹⁹ With a concave income profile, the development of income for each age group will be age-specific every year until retirement. Normally incomes increase faster in the early years of working life and start dropping around age 57. One explanation for the decrease is that people at this age tend to cut back on work hours, a step that may be viewed as preparation for the transition to retirement.

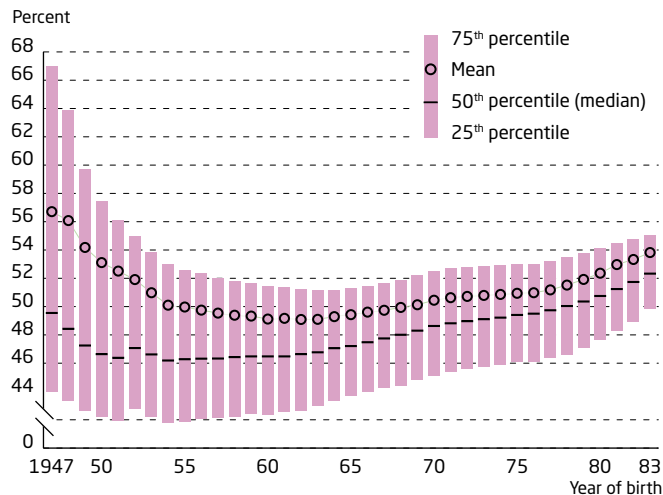
the pension level decreases by about 2.7 percent, if the differences in taxation among different types of income are taken into account.

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 2009²⁰. An average for each birth cohort born between 1947 and 1983 has then been calculated by adding up all replacement rates and dividing by the number of individuals in the birth cohort.

²⁰ For individuals with no income this year, no compensation rate can be determined, and they are excluded from the calculation. Individuals with a compensation rate above 150 percent have also been excluded, as such high compensation rates are usually due to an income level so low that it is normally temporary.

Replacement rates in the Orange Envelopes - national public pension at age 65 in percent of pension-qualifying final income. The guaranteed pension is not included.



Source: 4,021,492 individual projections in the Orange Envelope for 2011

Both the assumptions underlying this calculation and the method used differ in important respects from those used in calculating pension levels in the table on page 28 and in the three bar graphs. In the calculation of the pension level, the comparison income is the average income below the ceiling on earnings for persons aged 16–64 in the respective year. In the diagram above, the comparison income is the income below the ceiling in 2009 for the respective individual – equivalent to projected final income since it is assumed that there will be no growth in real earnings. For young individuals, with few years of earned pension credit, this means that the replacement rate is calculated with a virtually straight-line income profile. For persons who are relatively close to the retirement age, pensions are calculated on the basis of the actual incomes that they have earned – on average this 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. A further explanation is that the birth cohorts born in 1951–1953 will receive 15, 10 and 5 percent, respectively, of their pension computed according to the ATP rules, which on average are more favourable. 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 in the mid-1950's 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 1955.

Guaranteed Pension and Its Coverage

In more ways than via balancing alone, the guaranteed pension and the inkomstpension function to some extent like communicating vessels. For an unmarried individual, the guaranteed pension is reduced to zero with an inkomstpension of SEK 130,000. 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 income²¹ 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.

²¹ This is roughly equivalent to SEK 352 000 for men and SEK 292 000 for women in age interval 25–34. Data taken from Survey of Household Finances (HEK 2008), Statistics Sweden, for fully employed persons, increased by the growth in hourly earnings until 2010.

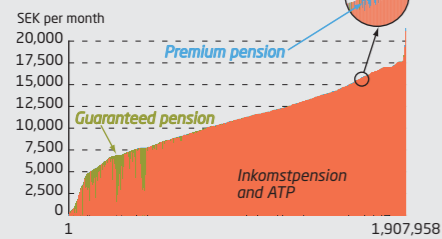
Pension Liability to the Economically Active

The **inkomstpension liability to the economically active** consists of the sum of each birth cohort's pension balances as of December 31, 2010, with the addition of total estimated pension credit for 2010. 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 as of December 31, 2010.

Pension Disbursements



In the diagram, disbursements of the national pension in December, 2010, for pensioners born in 1945 or earlier are presented in order of size (1,907,958 disbursements).

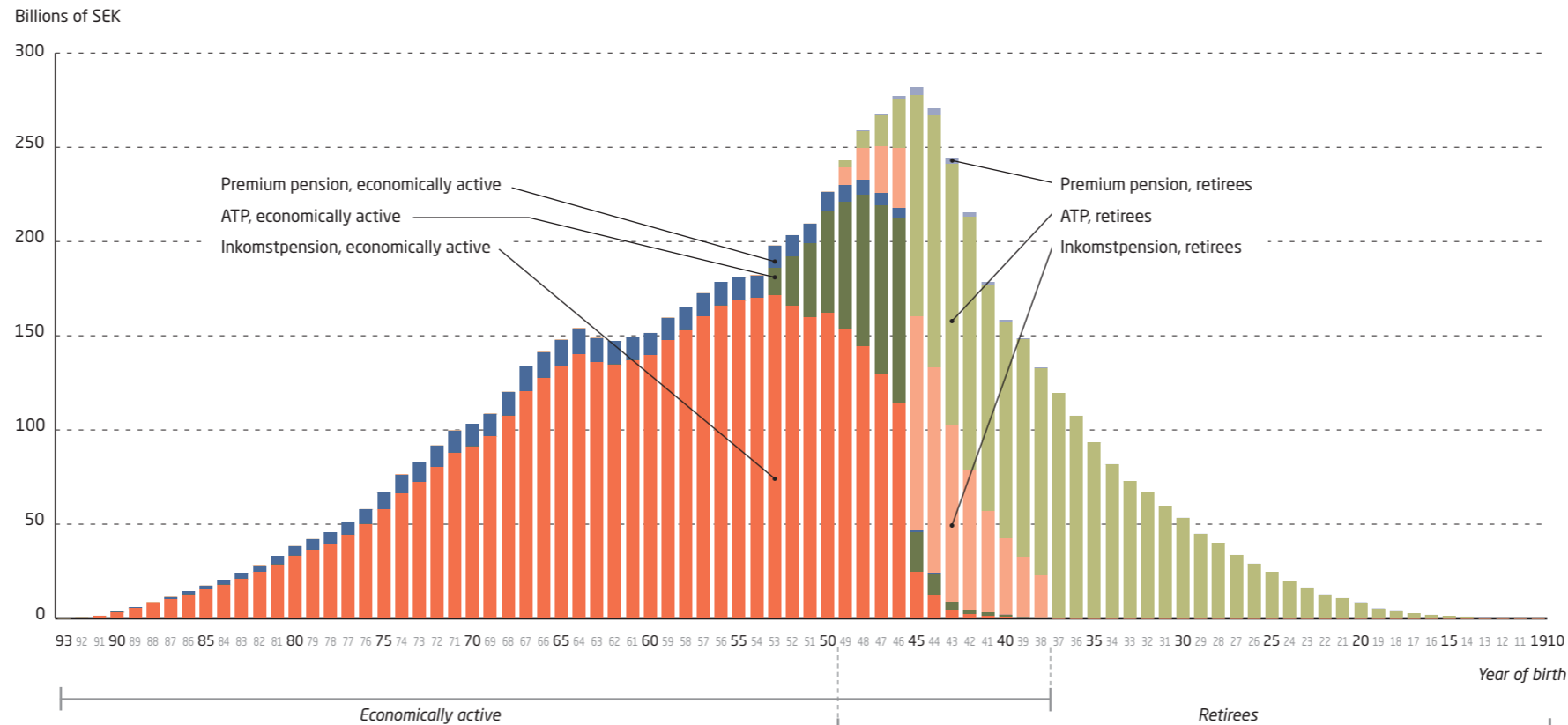
About 40 percent of the pensioners receive some guaranteed pension. In total, the guaranteed pension represents roughly 7 percent of pension disbursements.

Pension Credit Earned

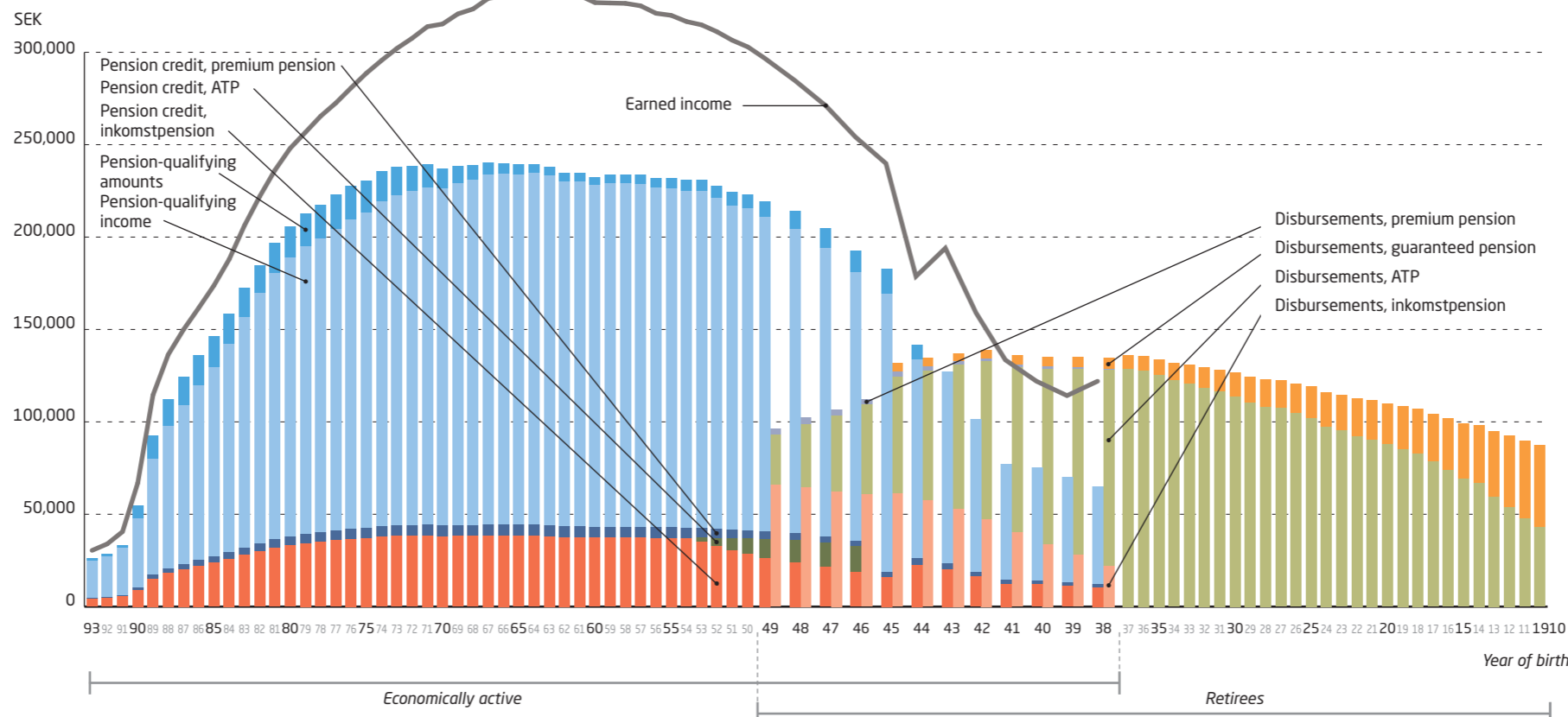
Data on income and pension credit are taken from the Swedish Social Insurance Agency's records of earnings and refer to average amounts for all insured persons with positive pension credit earned in 2009. For the total pension credit earned in 2009, see the respective income statements and balance sheets for the inkomstpension and the premium pension.

Income refers to income from employment and other earned income, as well as transfer payments. Income is shown before deduction of the general pension contribution and for persons with incomes exceeding the threshold for pension credit (42.3 percent of one price-related base amount).

Total Pension Liability as of December 31, 2010



Average Pension Credit Earned and Pension Disbursed

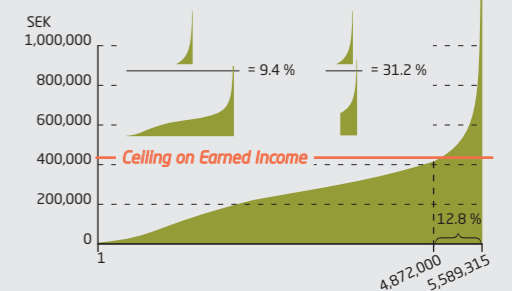


Pension Liability to Retirees

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 2010 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 2010, multiplied by 12 and by annuity divisors for the premium pension.

Earned Income

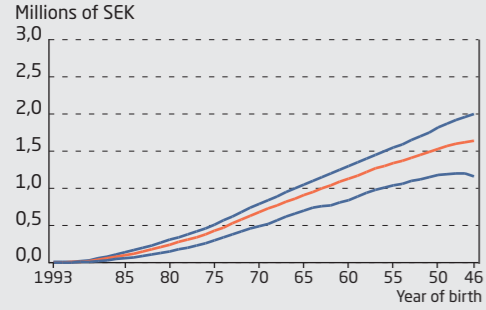


The national pension is based on earned income up to a ceiling of 8.07 income-related base amounts. In the diagram earnings in 2009 are presented in order of size.

Pension Disbursements

Data on pension disbursements are taken from the Swedish Social Insurance Agency's records of disbursements and refer to average amounts for all retirees receiving a pension disbursement in 2010. For total disbursements of the inkomstpension and the premium pension, see Note 2.

Pension Liability to Persons Aged 17-64

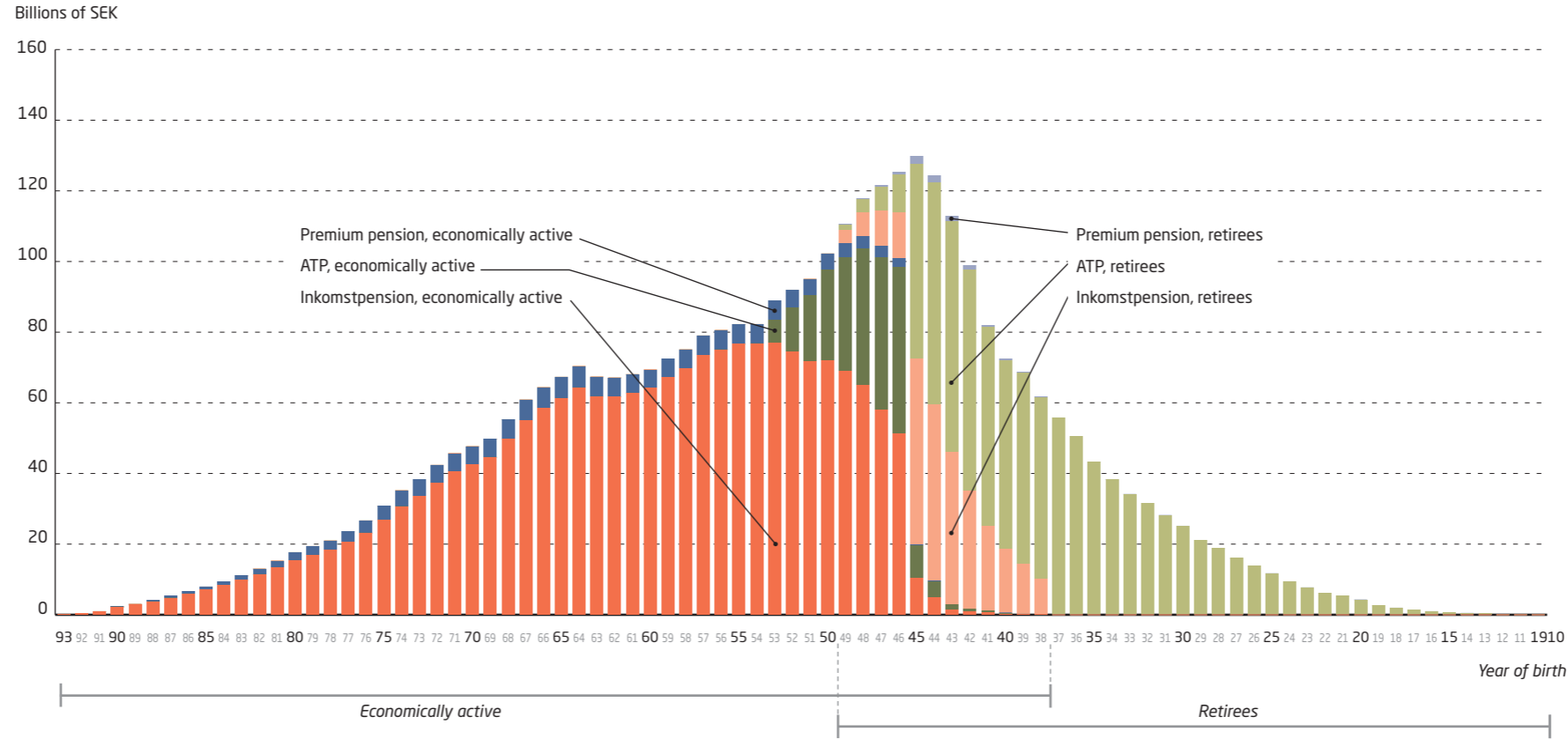


The red curve represents the median, which is the central value in the scale of values arranged from lowest to highest. The other curves indicate the values for the 25th and 75th percentiles; i.e. the upper curve represents the value of the pension asset* exceeded by 25 percent of the insured, and the lower curve represents the value of the pension asset not reached by 25 percent of the insured.

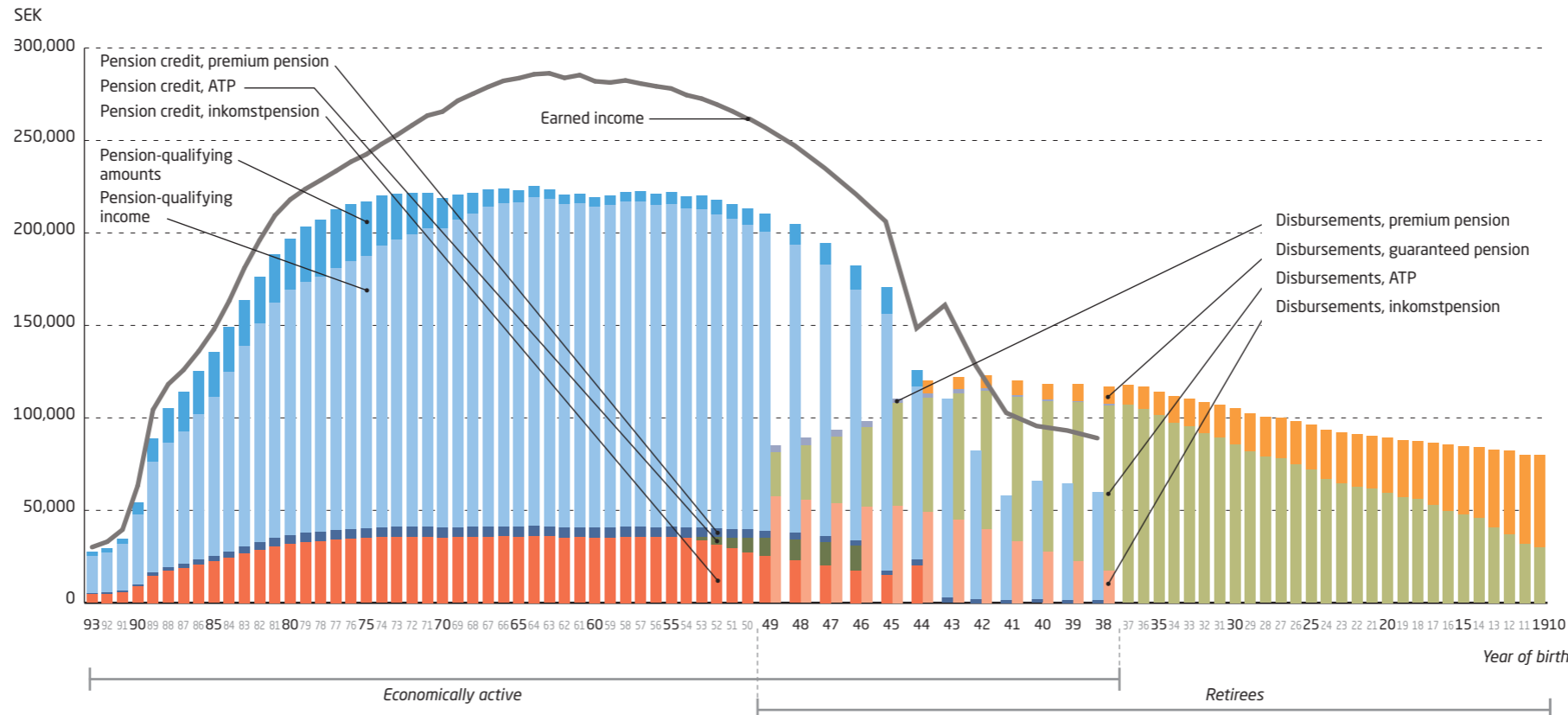
The median pension asset for a woman aged 40 with pension credit is approximately SEK 680,000. At that age, about 25 percent have a pension asset above SEK 790,000, and 25 percent have a pension asset below SEK 490,000.

* The pension balances of individuals equal the pension liability of the system.

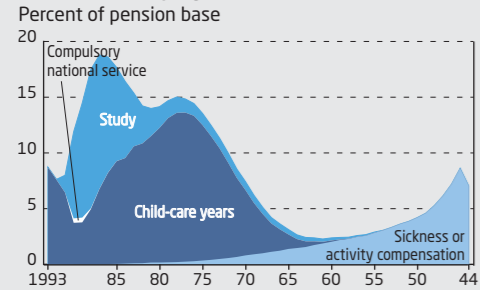
Total Pension Liability as of December 31, 2010, Women



Average Pension Credit Earned and Pension Disbursed, Women



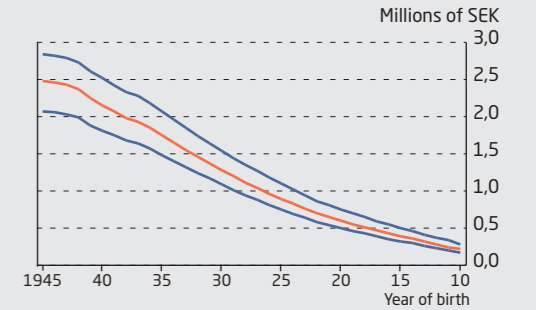
Pension Qualifying Amounts



Pension credit is granted for pension-qualifying amounts in particular phases of individuals' lives, such as years with small children or of compulsory national service. In pay-in year 2009, pension-qualifying amounts constituted 7.5 percent of the pension base for women. The largest portion of this share, 4.2 percent, consisted of amounts for years with small children.

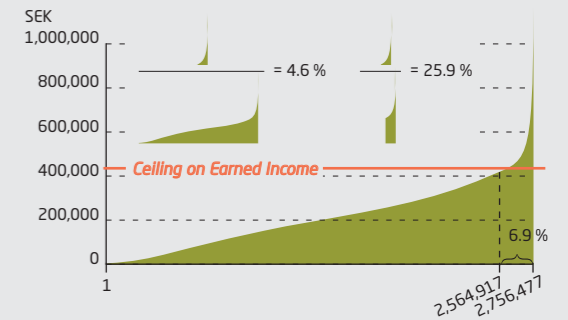
From a life cycle perspective, women receive the highest share of pension qualifying amount in young ages, mainly for childcaring but also for studying, while in older ages the main source of pension qualifying amount comes from receipt of sick insurance.

Pension Liability to Persons Aged 65 and Above



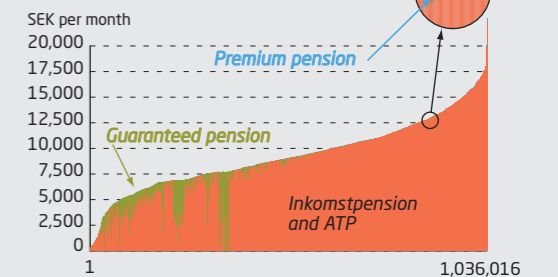
For 25 percent of retired women, the pension asset exceeds SEK 2,323,000 at age 65. The median at that age is SEK 1,852,000, and for 25 percent the pension asset is less than SEK 1,478,000. For a pensioner 76 years of age, the corresponding amounts decrease to SEK 1,394,000, 1,085,000 and 754,000.

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 2009 are presented in order of size.

Pension Disbursements

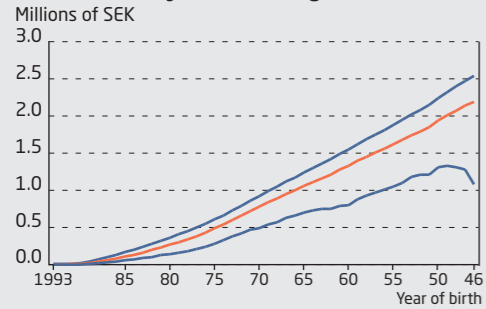


In the diagram, disbursements of the national pension in December, 2010, for female pensioners born in 1945 or earlier are presented in order of size (1,036,016 disbursements).

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

The widow's pension is not included in the diagram. Had it been included, pensions would have been substantially higher, particularly the lowest ones.

Pension Liability to Persons Aged 17-64

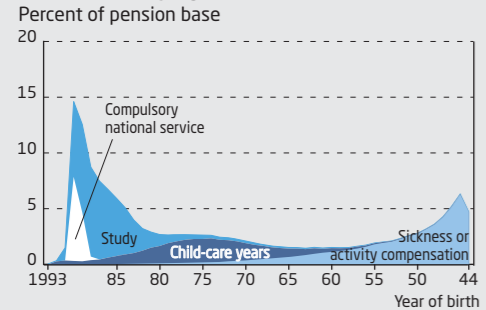


The red curve represents the median, which is the central value in the scale of values arranged from lowest to highest. The other curves indicate the values for the 25th and 75th percentiles; i.e. the upper curve represents the value of the pension asset* exceeded by 25 percent of the insured, and the lower curve represents the value of the pension asset not reached by 25 percent of the insured.

The median pension asset for a man aged 40 with pension credit is approximately SEK 780,000. At that age, about 25 percent have a pension asset above SEK 924,000, and 25 percent have a pension asset below SEK 490,000.

* The pension balances of individuals equal the pension liability of the system.

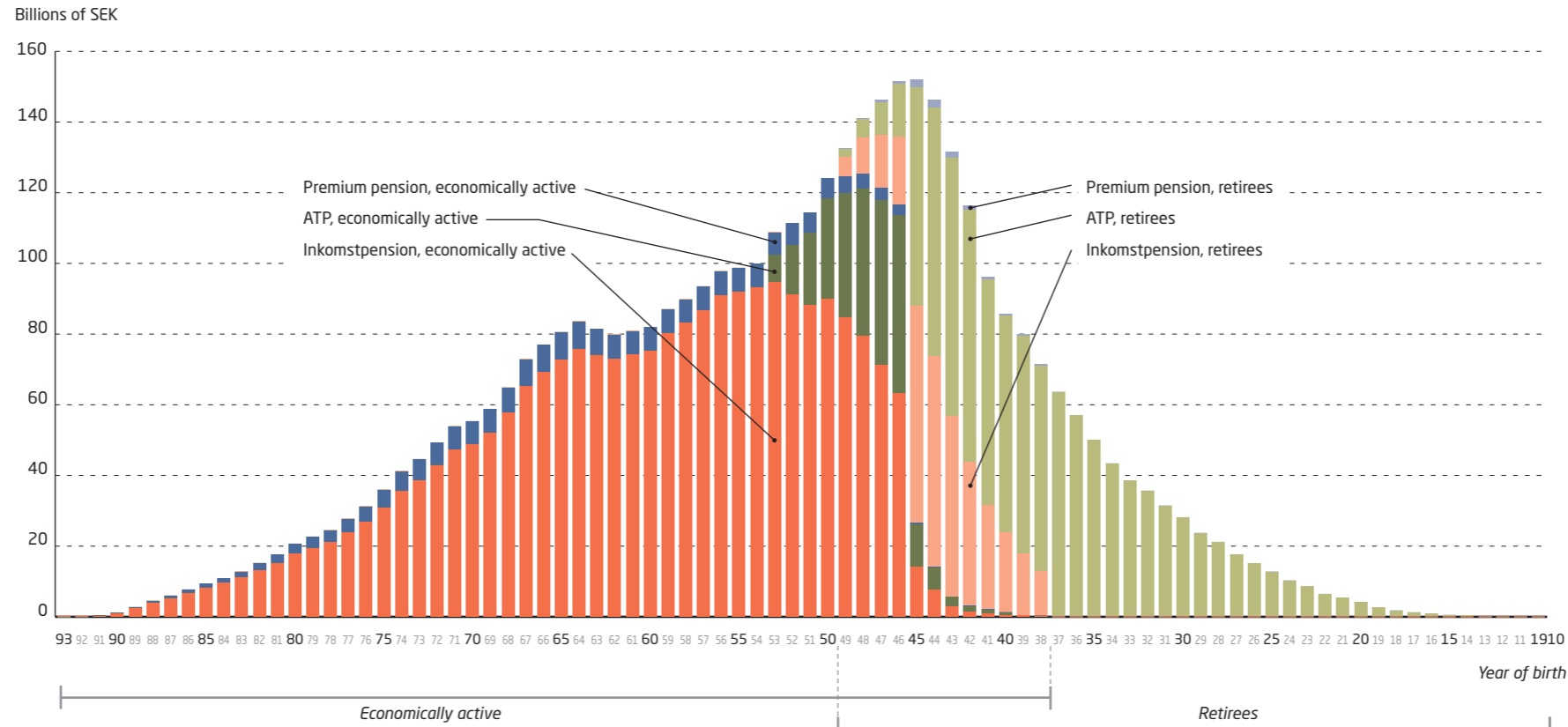
Pension Qualifying Amounts



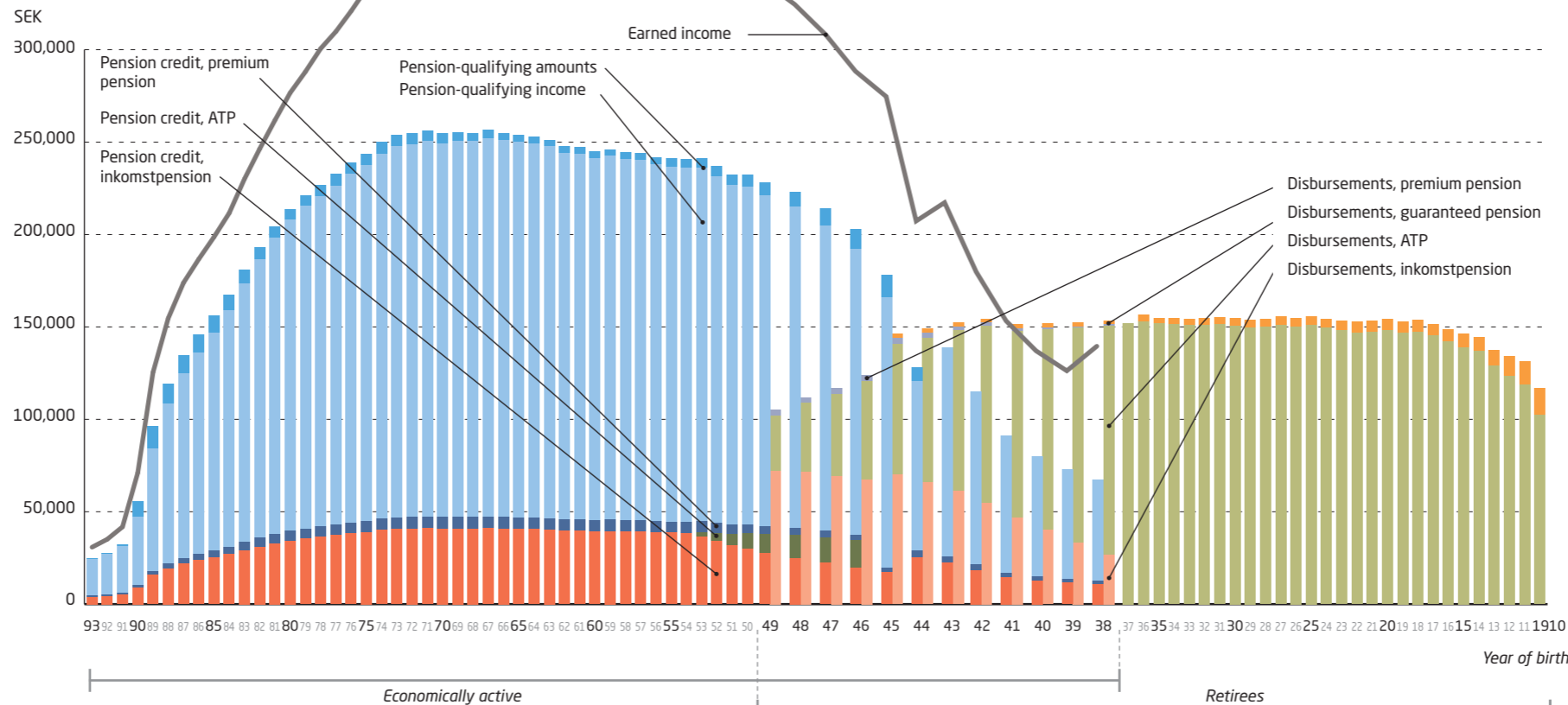
Pension credit is granted for pension-qualifying amounts in particular phases of individuals' lives, such as years with small children or of compulsory national service. In pay-in year 2009, pension-qualifying amounts constituted 2.8 percent of the pension base for men. The largest portion of this share, 1.2 percent, consisted of amounts for sickness or activity compensation.

From a life cycle perspective, men receive the highest share of pension qualifying amount in young ages for studying, followed by military service, while in older ages the main source of receipt of pension qualifying amount comes from receipt of sick insurance.

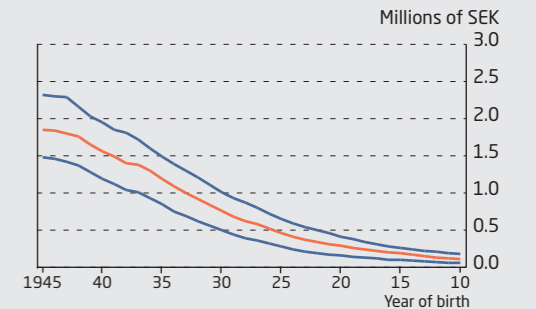
Total Pension Liability as of December 31, 2010, Men



Average Pension Credit Earned and Pension Disbursed, Men

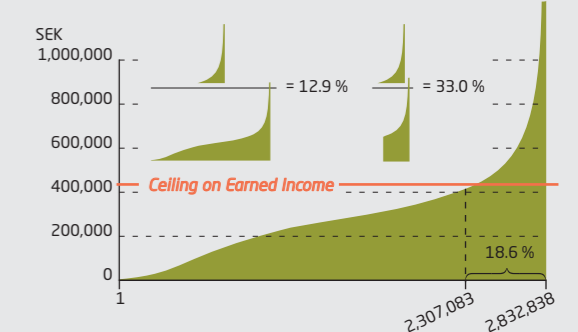


Pension Liability to Persons Aged 65 and Above



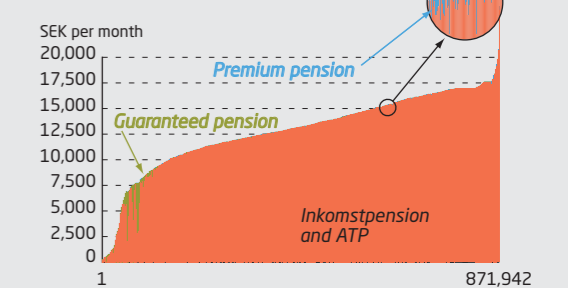
For 25 percent of retired men, the pension asset exceeds SEK 2,841,000 at age 65. The median at that age is SEK 2,485,000, and for 25 percent the pension asset is less than SEK 2,072,000. For a pensioner 76 years of age, the corresponding amounts decrease to SEK 1,958,000, 1,646,000 and 1,402,000.

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 2009 are presented in order of size.

Pension Disbursements



In the diagram, disbursements of the national pension in December, 2010, for male pensioners born in 1945 or earlier are presented in order of size (871,942 disbursements).

About 17 percent of male pensioners receive some guaranteed pension. In total, the guaranteed pension represents roughly 2 percent of pension disbursements to male retirees.

Your pension accounts

Changes in your accounts in 2010, SEK	Inkomstpension	Premium pension
Balance, December 31, 2009	678,149	54,755
Pension credit recorded for 2009	+ 31,442	+ 5,024
Inheritance gain	+ 2,127	+ 107
Charge for administrative costs	- 229	- 87
Change in value	- 18,591	+ 6,604
Balance, December 31, 2010 **	667,067	66,071 *

* Includes change in value of funds and interest on pension credit for 2009.

** 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.

Total balance of your accounts:

Your national pension balance

SEK 733,138

The Orange Envelope of Mr./Ms. Average Svensson

Returadress: 105 85 Stockholm

Returadress: 105 85 Stockholm

All pension accounts

Changes during 2010, SEK *	Inkomstpension	Premium pension
Balance, December 31, 2009	4,158,534,000,000	343,583,000,000
Pension credit recorded for 2009	+ 192,808,000,000	+31,528,000,000
Inheritance gain	+ 13,046,000,000	+ 670,000,000
Charge for administrative costs	- 1,404,000,000	- 546,000,000
Change in value	- 114,003,000,000	+ 41,442,000,000
Balance, December 31, 2010 ***	4,090,576,000,000	414,593,000,000 **

* Rounded off to the nearest million.

** Includes change in value of funds and interest on pension credit for 2009.

*** 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 4,505,169,000,000

Total of All Envelopes

Retadress: 105 85 Stockholm

When read out loud, the total of all Orange Envelopes is as follows: four trillion, five hundred five billion, one hundred sixtynine 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 2010

in 7 Minutes

Thanks to a reduction of the pension liability through indexation and growth in the value of the National Pension Funds, the inkomstpension system reported a return of SEK 425 billion for 2010. The aggregate surplus is now SEK 103 billion, or 1.4 percent of the pension liability. Because of the surplus, there will be increase of indexation through balancing.

In the premium pension system the growth in value during 2010 was quite substantial at SEK 42 billion, or 12.1 percent. This section provides a brief presentation of the development of the two parts of the national pension - the inkomstpension and the premium pension - in 2010.

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 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

significant, 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 that 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.

Change in Assets in 2010. In 2010 the buffer fund, that is, the First–Fourth and Sixth National Pension Funds, increased by SEK 68 billion, or 8.2 percent. The positive return of the buffer fund was SEK 85 billion, or 10.3 percent. 2010, as 2009, became a year when the expenditure of the funds – pension disbursements and costs of administration – exceeded the pension contributions paid into the inkomstpension system. The result was a negative contribution of SEK 17 billion.

The contribution asset increased by SEK 213 billion, or 3.3 percent. The increase was due both to higher contribution revenue and to an increasing CPI in 2010. Turnover duration diminished, however, thus reducing the increase in the contribution asset. The total assets of the inkomstpension rose by SEK 280 billion, or 3.9 percent.

Change in the Pension Liability in 2010. The pension liability fell by SEK 145 billion, or 1.9 percent. Because of balancing, indexation of the liability both to the economically active and to retirees was negative, reducing the liability by SEK 165 billion. The year's pension disbursements exceeded new pension credit and supplementary-pension (ATP) points, including adjustments, reducing the pension liability by SEK 5 billion. Compared to 2009, the average pay-out duration (economic life expectancy) of a 65-year-old has increased by 42 days. The longer expected pay-out duration increased the pension liability by SEK 25 billion.

Result for 2010. The net result of the inkomstpension system for the year was SEK 425 billion. The capital deficit in the pension system of SEK 323 billion from 2009 has changed during the year to a surplus of SEK 103 billion. With the decrease in the liability and the increase in assets, the result for 2010 was positive.

Financial Position as of December 31, 2010. As of December 31, 2010, assets were 1.40 percent higher than the pension liability. The balance ratio of the system for 2012 is thus 1.0024.

Nine-Year Review

Billions of SEK

	2010	2009	2008	2007	2006	2005	2004	2003	2002
Buffer fund, mean value	810	811	821						
Buffer fund	895	827	707	898	858	769	646	577	488
Contribution asset	6,575	6,362	6,477	6,116	5,945	5,712	5,607	5,465	5,301
Total assets	7,469	7,189	7,184	7,014	6,803	6,490	6,253	6,042	5,789
Pension liability	7,367	7,512	7,428	6,996	6,703	6,461	6,244	5,984	5,729
Results brought forward	103	-323	-243	18	100	28	9	58	60
Balance ratio	1.0024	0.9549	0.9826	1.0026	1.0149	1.0044	1.0014	1.0097	1.0105
Financial position*	1.0140	0.9570	0.9672						

* The balance ratio according to the previous definition (through 2007), 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 calculated at less than 1.0000. In 2010, the balance ratio, which is calculated on the basis of the system's financial position as of December 31, 2010, and affects indexation at the end of 2011, was calculated to be greater than 1.0000. This balance ratio is 1.0024 and will raise indexation by 0.24 percent.

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 %
Age for entering labour market	-1 year	+4 %

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.

Change in Assets in 2010. Premium pension assets increased during the year by SEK 71 billion. The increase consists of SEK 31 billion in new pension credit, SEK 42 billion in increased value of funded capital, and SEK -1 billion in pension disbursements. The rate of return during the year was 12.1 percent. The capital-weighted annual return of the premium pension system has averaged 4.2 percent since the system received its first contribution revenue in 1995.

Change in the Pension Liability in 2010. The pension liability increased by SEK 70 billion in 2010. The change in the pension liability is based in principle on the same newly earned pension credit, positive change in value, and pension disbursements as mentioned above.

Result for 2010. The result for the year was SEK 1,249 million. In addition to a positive result of SEK 207 million from fund operations, the result was affected by SEK 1,042 million from conventional insurance, SEK 28 million from trade in fund shares via trade inventory, and by net interest of SEK -29 million. The principal explanation for the year's sizable positive result in conventional insurance is a sharp increase in the proportion of pensioners who have chosen conventional insurance.

Nine-Year Review

Millions of SEK

	2010	2009	2008	2007	2006	2005	2004	2003	2002
Fund insurance	409,640	341,371	231,600	309,423	268,708	192,770	125,024	94,124	59,416
Conventional insurance	4,953	2,212	1,733	1,288	739	307	94	31	4
Total insurance assets	414,593	343,583	233,333	310,711	269,447	193,077	125,118	94,155	59,420
Pension liability	412,924	342,914	233,082	310,326	269,447	193,077	125,120	94,157	59,422
Result for the year	1,249	547	-100	318	56	57	48	-109	-365

The value of pension savers' premium pension assets as of December 31, 2010, was SEK 414,593 million. The increase in value during 2010 was 12.1 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	2010	2009	Change
Pension contributions	236,596	233,699	2,897
Pension disbursements	-221,568	-218,242	-3,326
Return on funded capital	127,280	217,413	-90,133
Administrative costs	-2,188	-2,066	-122
Total	140,120	230,804	-90,684
Change in contribution asset			
Value of change in contribution revenue	232,117	-114,919	347,036
Value of change in turnover duration	-19,427	-507	-18,920
Total	212,690	-115,426	328,116
Change in pension liability*			
New pension credit and ATP points	-246,237	-244,497	-1,740
Pension disbursements	221,563	218,223	3,340
Indexation/change in value	123,556	-144,453	268,009
Value of change in life expectancy	-25,333	-23,054	-2,279
Inheritance gains arising	12,140	12,072	68
Inheritance gains distributed	-13,716	-13,684	-32
Deduction for administrative costs	1,950	1,233	717
Total	73,923	-194,160	268,083
Net income/-loss for the year	426,733	-78,782	505,515

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

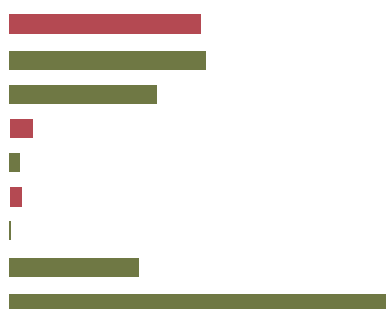
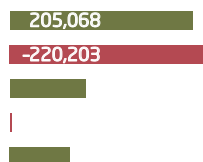
Balance Sheet, millions of SEK

Assets	12/31 2010	12/31 2009	Change
Fund assets	894,881	827,069	67,812
Insurance assets	414,593	343,583	71,010
Other assets	31,246	29,690	1,556
Contribution asset	6,574,615	6,361,925	212,690
Total assets	7,915,335	7,562,267	353,068
Liabilities and results brought forward			
Opening results brought forward	-323,501 *	-244,673	-78,828
Net income/-loss for the year	426,733	-78,782	505,515
Closing results brought forward	103,232	-323,455	426,687
Pension liability	7,779,634	7,854,606	-74,972
Other liabilities	32,469	31,116	1,353
Total liabilities and results brought forward	7,915,335	7,562,267	353,068

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

Inkomstpension, Income Statement and Balance Sheet

SEK 100 billion
|++++++|

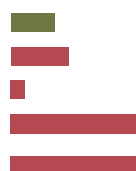


Income Statement, millions of SEK

	Note	2010	2009	Change
Change in fund assets				
Pension contributions	1	205,068	202,712	2,356
Pension disbursements	2	-220,203	-217,412	-2,791
Return on funded capital	3	84,796	136,412	-51,616
Administrative costs	4	-1,849	-1,730	-119
Total		67,812	119,982	-52,170
Change in contribution asset				
Value of change in contribution revenue	5	232,117	-114,919	347,036
Value of change in turnover duration	6	19,427	-507	-18,920
Total		212,690	-115,426	328,116
Change in pension liability*				
New pension credit and ATP points	7	-214,709	-213,510	-1,199
Pension disbursements	2	220,198	217,393	2,805
Indexation	8	164,998	-63,888	228,886
Value of change in life expectancy	9	-25,333	-23,054	-2,279
Inheritance gains arising	10	11,470	11,417	53
Inheritance gains distributed	10	-13,046	-13,029	-17
Deduction for administrative costs	11	1,404	786	618
Total		144,982	-83,885	228,867
Net income/-loss for the year		425,484	-79,329	504,813

* 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

Assets	Note	12/31 2010	12/31 2009	Change
Fund assets	12	894,881	827,069	67,812
Contribution asset	13	6,574,615	6,361,925	212,690
Total assets		7,469,496	7,188,994	280,502
Liabilities and results brought forward				
Opening results brought forward		-322,698	-243,369	-79,329
Net income/-loss for the year		425,484	-79,329	504,813
Closing results brought forward		102,786	-322,698	425,428
Pension liability	14	7,366,710	7,511,692	-144,982
Total liabilities and results brought forward		7,469,496	7,188,994	280,502

Premium Pension, Income Statement and Balance Sheet

SEK 100 billion
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Income Statement, millions of SEK

	Note	2010	2009	Change
Change in fund assets				
Pension contributions	1	31,528	30,987	541
Pension disbursements	15	-1,365	-830	-535
Return on funded capital	16	42,484	81,001	-38,517
Administrative costs	17	-339	-336	-3
Total		72,308	110,822	-38,514
Change in pension liability *				
New pension credit	18	-31,528	-30,987	-541
Pension disbursements	15	1,365	830	535
Change in value	19	-41,442	-80,565	39,123
Inheritance gains arising	20	670	655	15
Inheritance gains distributed	20	-670	-655	-15
Deduction for administrative costs	21	546	447	99
Total		-71,059	-110,275	39,216
Net income/-loss for the year		1,249	547	702

* 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 2010	12/31 2009	Change
Assets				
Insurance assets	22	414,593	343,583	71,010
Other assets	23	31,246	29,690	1,556
Total assets		445,839	373,273	72,566
Liabilities and results brought forward				
Opening results brought forward	24	-803	-1,304	501
Net income/-loss for the year		1,249	547	702
Closing results brought forward	24	446	-757	1,203
Pension liability	25	412,924	342,914	70,010
Other liabilities	26	32,469	31,116	1,353
Total liabilities		445,393	374,030	71,363
Total liabilities and results brought forward		445,839	373,273	72,566

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 15, § 20 of the Earnings Related Old Age Pension Act (1998:674).

The income-related old-age pension system includes the benefits provided by the inkomstpension, the ATP and the premium pension.²²

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 the Earnings Related Old Age Pension Act (1998:674), 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.pension-smyndigheten.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 funds²³. 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.

²² The guaranteed pension, which is part of the national pension system, is not based on earnings and is therefore not included in the accounts.

²³ The accounting for the financial position of the inkomstpension system in the Annual Report of the Swedish Pensions Agency for 2010 is based on preliminary data for the operations of the National Pension Funds. There are certain minor discrepancies compared to subsequently audited and confirmed data.

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 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 Pension 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.

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 the balancing is activated, there is in principle an absolute link between the respective rates of change in liabilities and assets.²⁴

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 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

²⁴ 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.

²⁵ The method of calculating turnover duration is described in Equation 3, Appendix B.

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.²⁵ 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.²⁶

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-called economic annuity divisors.²⁷ In economic annuity divisors, consideration is given to any correlation between size of pensions and pay-out period.

²⁶ See Note 14, Table A.

²⁷ See Formula 4.3 in Appendix B.

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.

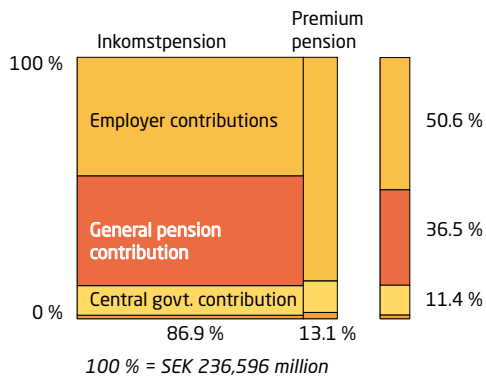
With conventional insurance, holdings are invested in various assets and reported at their true value.

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 2009. 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.

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



In the diagram final settlements etc. have been allocated between employer contributions and the central government old-age pension contribution.

Contributions to the National Pension

	Inkomstpension		Premium pension	
	2010	2009	2010	2009
Contributions to:				
Employer contributions on income up to ceiling	91,844	89,537	25,909	25,017
Contributions for the self-employed on income up to ceiling	2,647	2,501	747	697
General pension contribution	86,171	88,521	-	-
Central government old-age pension contribution	23,112	23,632	3,794	3,847
Final settlements etc.	1,294	-1,479	1,078	1,426
Total	205,068	202,712	31,528	30,987

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.

The contribution revenue of the pension system increased between 2009 and 2010. Revenue from employer contributions and contributions for the self-employed were higher, whereas revenue from the general pension contribution dropped on account of negative adjustments for previous years. Central government old-age pension contributions were also down. The reported contribution of the premium pension system for a given year actually refers to the preceding year, as premium pension credits are distributed a year later than the year to which they apply.

More Detailed Accounting for Pension Contributions

Table A shows pension contributions recorded in 2010 by the Swedish Social Insurance Agency or the Pensions Agency. Starting with 2010, employer contributions and contributions for the self-employed are recorded by the Social Insurance Agency, whereas the general pension contribution and central-government old-age pension contributions are recorded by the Pensions Agency before they are 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.²⁸ Since these contributions do not represent pension credit, they are in fact taxes.

²⁸ The income-related base amount for 2010 was SEK 51,100. This base amount multiplied by 8.07 was SEK 412,377; multiplied by 7.5, it was SEK 383,250.

Table A Pension Contributions by Type, 2010

Contributions to:	Inkomst-pension	Premium pension	Central govt. budget (tax)	Total	of which contrib. to national pension
Employer contributions	91,844	25,909	13,692	131,445	117,753
Contributions for the self-employed	2,647	747	401	3,795	3,394
General pension contribution	86,171	-	-	86,171	86,171
Central govt. old-age pension contribution	23,112	3,794	-	26,906	26,906
Total excluding settlements etc.*	203,774	30,450	14,093	248,317	234,224
Final settlements in 2010 for 2008	684	-514	-170	0	170
Collection loss, settlement	-425	-	-	-425	-425
Adjustment to accounting of National Pension Funds and premium pension system, respectively	1,035	1,592	-	2,627	2,627
Total	205,068	31,528	13,923	250,519	236,596

* Contributions received by the Swedish Social Insurance Agency/the Swedish Pensions Agency in 2010 and transferred to the National Pension Funds, the premium pension system and the central government budget, respectively.

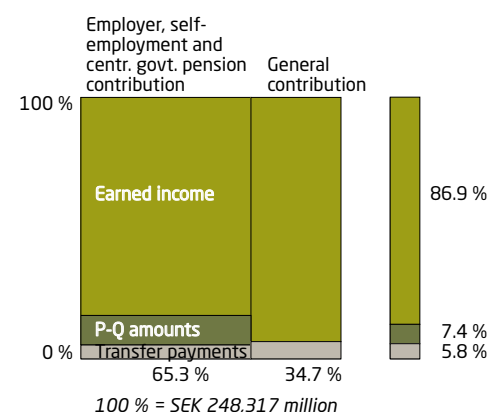
To ensure that the premium pension system has received contributions corresponding to the pension credit earned for a particular year and that the central government budget has received contributions for the portion of incomes above the contribution ceiling, the discrepancies are reconciled two years 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 1,035 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 1,592 million) is that the accounts refer to different years. The accounts of the premium pension system refer to contribution revenue for pension credit earned in 2009. Otherwise, the accounts refer to contributions received in 2010.

Table B Pension Contributions, Excluding Settlements etc. Allocated by Type of Contribution Base, 2010

	Employer, self-employed and centr. govt. pension contributions	General pension contribution	Total
Earned income*	135,240	80,470	215,710
Transfer payments, see Table C	8,585	5,701	14,286
Pension-qualifying amounts, see Table D	18,321	-	18,321
Total	162,146	86,171	248,317

* 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 2010.

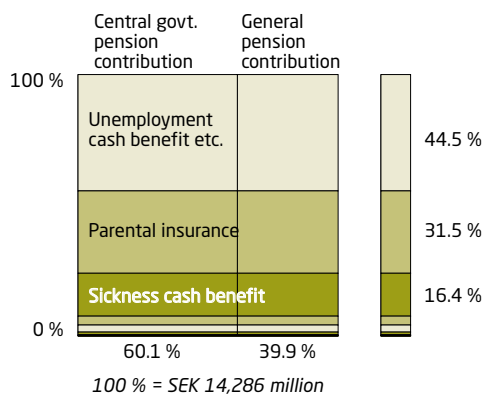


Table C Pension Contributions for Transfer Payments, 2010

	Cent. govt. pension contrib.	General pension contrib.	Total
Sickness cash benefit	1,407	934	2,341
Rehabilitation cash benefit	86	57	143
Allowance for care of close relatives	6	4	10
Work injury compensation, etc.	288	191	479
Parental insurance	2,708	1,798	4,506
Care allowance	233	155	388
Unemployment cash benefit etc.	3,823	2,539	6,362
Educational allowance	29	19	48
Artists' Board	4	3	7
Allowance to disease carriers	1	1	2
Total	8,585	5,701	14,286

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

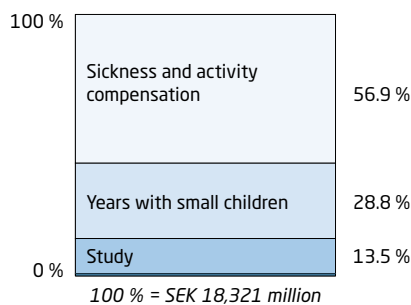


Table D Pension Contributions for Sickness/Activity Compensation and Pension Qualifying Amounts, 2010

Sickness and activity compensation*	10,422
Amounts credited for years with small children	5,279
Amounts credited for study**	2,474
Amounts credited for compulsory national service**	146
Total	18,321

* 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 for compulsory national service consists of pension-qualifying income.

Note 2 Pension Disbursements etc.

	2010	2009
ATP	186,436	186,954
Inkomstpension	37,762	30,439
Total pension disbursements	220,198	217,393
Transfers to European Communities	5	19
Total	220,203	217,412

In 2010 a total of SEK 220,198 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 2010 the sum of SEK 5 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 220,203 million as a result of pension disbursements or transfer of pension credit.

Note 3 Return on Funded Capital

National Pension Fund:	First	Second	Third	Fourth	Sixth	*	2010 Total	2009 Total
Stocks and shares	19,799	19,612	20,087	18,886	1,463	-1	79,846	116,056
<i>of which:</i>								
<i>Dividends received</i>	2,809	2,435	2,917	2,759	99	-1	11,018	10,977
<i>Gain/-loss, listed and unlisted stocks and shares, net</i>	16,990	17,177	17,170	16,127	1,364		68,828	105,079
Bonds and other interest-bearing securities	3,999	4,121	3,391	3,047	190		14,748	20,701
<i>of which:</i>								
<i>Net interest</i>	3,124	2,859	2,209	2,809	190		11,191	10,953
<i>Gain/-loss, interest bearing assets, net</i>	875	1,262	1,182	238	0		3,557	9,748
Other investments	-3,007	-1,119	-4,847	-568	220		-9,321	144
<i>of which:</i>								
<i>Gain/-loss, derivatives, net</i>	440	1,406	-2,027	2,207	-13		2,013	5,265
<i>Net foreign-exchange gain/-loss</i>	-3,447	-2,525	-2,820	-2,775	233		-11,334	-5,121
Costs of commission	-105	-196	-146	-30	0		-477	-489
Total	20,686	22,418	18,485	21,335	1,873	-1	84,796	136,412

* Adjustment column to adjust for effects of rounding when funds are summed up.

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

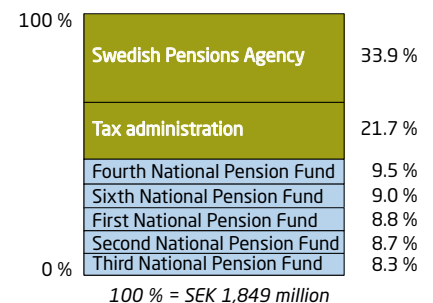
The item of Gain/-loss, derivatives, net now includes all derivatives; for this reason, there has been an adjustment of net interest under Bonds and other interest-bearing securities,

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

	2010	2009
Swedish Pensions Agency/Swedish Social Insurance Agency	627	544
Tax administration and other agencies*	402	378
Total costs of insurance administration	1,029	922
First National Pension Fund	163	191
Second National Pension Fund	150	150
Third National Pension Fund	154	147
Fourth National Pension Fund	176	174
Sixth National Pension Fund	167	146
Total costs, fund administration	820	808
Total	1,849	1,730

* 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 (78 percent in 2010, 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

	2010	2009
Smoothed contribution revenue 2010	207,619	-
Smoothed contribution revenue 2009	-200,300	200,300
Smoothed contribution revenue 2008	-	-203,918
Change in smoothed contribution revenue	7,319	-3,618
(Smoothed turnover duration 2010 + smoothed turnover duration 2009)/2	x 31.71436	-
(Smoothed turnover duration 2009 + smoothed turnover duration 2008)/2	-	x 31.76324
Value of change in contribution revenue	232,117	-114,919

Duration in years.

Table A Basis for Calculating Smoothed Value of Contribution Revenue

	2010	2009	2008	2007
Pension contributions	205,068	202,712	203,140	190,416
Smoothed contribution revenue	207,619	200,300	203,918	191,521
CPI, June	302.97	300.17	302.45	289.95

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

Note 6 Value of Change in Turnover Duration

	2010	2009
Smoothed turnover duration 2010	31.66673	-
Smoothed turnover duration 2009	-31.76198	31.76198
Smoothed turnover duration 2008	-	-31.76449
Change in smoothed turnover duration	-0.09525	-0.00251
(Smoothed contribution revenue 2010 + smoothed contribution revenue 2009)/2	x 203,960	-
(Smoothed contribution revenue 2009 + smoothed contribution revenue 2008)/2	-	x 202,190
Value of change in turnover duration	-19,427	-507

Duration in years.

Table A Basis for Calculating Smoothed Turnover Duration

	2010	2009	2008	2007
Pay-in duration	-	20.82729	20.88140	21.07097
Pay-out duration	-	10.83025	10.78533	10.69352
Turnover duration	-	31.65754	31.66673	31.76449
Smoothed turnover duration	31.66673	31.76198	31.76449	31.93368

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.

	2010	2009
Estimated inkomstpension credit earned	196,345	190,809
Estimated value of ATP points earned	7,093	10,439 *
Adjustment amount, new pension credit, see Table A	6,122	6,837
Adjustment amount, new ATP points, see Table B	5,149	5,425 *
Total	214,709	213,510

* Correction of data in Orange Report 2009. The row for totals is not affected.

Table A Adjustment Amount, New Pension Credit, 2010

Confirmed inkomstpension credit earned in 2009	192,808
Estimated inkomstpension credit earned in 2009	-190,809
Adjustments affecting pension balances, etc.	-2,849
Change in amounts disbursed	6,972
Total	6,122

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. In the Annual Report of the Pension System for 2009, pension credit earned during the year was estimated at SEK -190,809 million. After the tax assessment for 2009 had been finalized, the actual value proved to be SEK 192,808 million.

The adjustment amount of SEK -2,849 million represents adjustments, tax-assessment changes etc. affecting the size of pension balances; see Note 14, Table A. The pension liability to retirees has been changed by SEK 6,972 million because of changes in pension disbursements other than indexation (see Note 14, Table C).

Table B Adjustment Amount, New ATP Points, 2010

Effect of difference between assumed value for 2010 and estimate for 2009, etc.	3,163
Value of other paid-in pension contributions for ATP*	131
Change in amounts disbursed	1,855
Total	5,149

* 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 2018.²⁹

²⁹ 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

	2010			2009		
	Active	Re-tired	Total	Active	Re-tired	Total
Inkomstpension, indexation	-114,003	-6,919	-120,922	-58,238	22,298	-35,940
of which: <i>Effect of income index</i>	77,603	1,702	79,305	14,325	22,298	36,623
<i>Effect of balance ratio</i>	191,606	-8,621	-200,227	-72,563		-72,563
ATP, indexation	-18,127	-25,949	-44,076	-11,273	111,101	99,828
of which: <i>Effect of income index</i>	11,782	6,435	18,217	2,725	111,101	113,826
<i>Effect of balance ratio</i>	-29,909	-32,597	-62,506	-13,998	-	-13,998
<i>Effect of price index</i>		213	213			
Total	-132,130	-32,868	-164,998	-69,511	133,399	63,888

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 income index multiplied by the product of applicable balance ratios. The value of indexation refers to the indexation applied to the pension liability on December 31, 2010. The pension liability to the economically active as of December 2010 obtained a return in accordance with the net change in the balance index from 2010 to 2011, which was -2.7 percent, of which the change in the income index contributed +1.9 percent and the current balance ratio, -4.5 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, 2009, which was -1.4 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

	2010			2009		
	Active	Re-tired	Total	Active	Re-tired	Total
Inkomstpension	-	4,587	4,587	-	3,489	3,489
ATP	3,729	17,017	20,746	4,606	14,959	19,565
Total	3,729	21,604	25,333	4,606	18,448	23,054

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. In the inkomstpension system, only the liability to retirees will increase 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

Year of birth	2010		2009	
	Inheritance gains arising	Inheritance gains distributed	Inheritance gains arising	Inheritance gains distributed
1950 or earlier	4,763	6,299	4,615	6,129
1950 or later	6,707	6,747	6,802	6,900
Total	11,470	13,046	11,417	13,029

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. 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 2009 (born in 1950 or thereafter) were distributed to the respective birth cohorts in 2010. 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 2010 (born in 1950 or earlier), the inheritance gains are distributed in the same year.

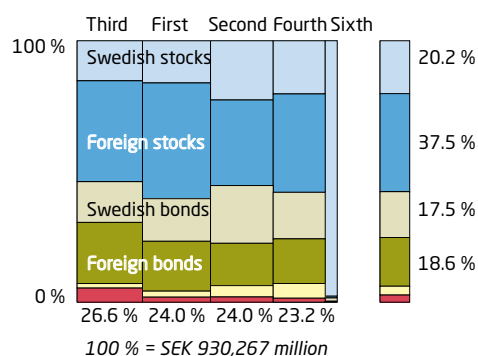
Note 11 Deduction for Costs of Administration

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 2010, 78 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 administrative cost deduction is calculated as pension balances multiplied by the administrative cost factor. The deduction in 2010 was 0.0343 percent and totalled SEK 1,404 (786) million.

Note 12 Fund Assets

National Pension Fund:	First	Second	Third	Fourth	Sixth	2010 Total	2009 Total
Stocks and shares	135,098	123,825	133,272	125,000	19,884	537,079	490,845
of which: Swedish	36,083	50,670	37,861	43,848	19,749	188,211	163,181
Foreign	99,015	73,155	95,411	8,152	135	348,868	32,664
Bonds and other interest-bearing assets	79,093	85,589	96,338	75,169	262	336,451	304,213
of which: Swedish issuers	36,453	49,412	38,547	38,366	262	163,040	129,430
Foreign issuers	42,640	36,177	57,791	36,803	-	173,411	174,783
Derivatives	5,152	9,707	4,317	12,150	-	31,326	25,436
Other assets	4,304	4,472	13,315	3,256	64	25,411	20,658
Total assets	223,647	223,593	247,242	215,575	20,210	930,267	841,152
Liabilities	-4,866	-1,086	-26,413	-2,739	-282	-35,386	-14,083
of which: Derivatives	-1,396	-912	-1,430	-1,720	-	-5,458	-6,602
Others	-3,470	-174	-24,983	-1,019	-282	-29,928	-7,481
Total	218,781	222,507	220,829	212,836	19,928	894,881	827,069



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.

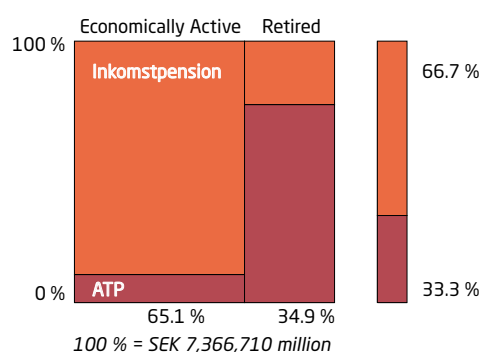
Note 13 Contribution Asset

	2010	2009
Smoothed contribution revenue	207,619	200,300
Smoothed turnover duration	x 31.66673	x 31.76198
Contribution asset	6,574,615	6,361,925

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



	2010			2009		
	Active	Re-tired	Total	Active	Re-tired	Total
Inkomstpension	4,286,921	623,627	4,910,548	4,349,343	512,663	4,862,006
ATP	511,476	1,944,686	2,456,162	652,280	1,997,406	2,649,686
Total	4,798,397	2,568,313	7,366,710	5,001,623	2,510,069	7,511,692

The pension liability to retirees for the ATP and the inkomstpension is calculated in the same manner for both. The first step is to add up the pension disbursements to each birth cohort in December and to multiply the total by 12 to obtain a theoretical annual amount. 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, 2010, with the addition of the estimated pension credit earned in 2010. 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. 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 calculations are performed for all people born in 1953 or earlier who have not drawn their entire supplementary pension. 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, 2010

Inkomstpension liability to the economically active, December 31, 2009	4,349,343
of which estimated inkomstpension credit earned in 2009	-190,809
Pension balance, December 31, 2009	4,158,534
Inheritance gains arising from persons dying before age 60*	-6,707
Adjustments affecting pension balances**	-249
Opening pension balance, 2010	4,151,578
Changes in tax assessments etc. affecting pension balances	-2,600
Confirmed inkomstpension credit earned in 2009	192,808
Distributed inheritance gains from persons dying at or after age 60	6,299
Distributed inheritance gains from persons dying before age 60	6,747
Indexation	-114,003
Deduction for administrative costs	-1,404
Pensions drawn	-145,060
Pensions revoked	974
Inheritance gains arising, persons dying at or after age 60	-4,763
Pension balances as of December 31, 2010	4,090,576
Estimated inkomstpension credit earned in 2010	196,345
Inkomstpension liability to the economically active as of December 31, 2010	4,286,921

* Distributed in 2010.

** 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, 2010

ATP liability to the economically active, December 31, 2009	652,280
Effect of difference between assumption for 2010 and estimate in 2009 etc.	3,163
Opening ATP liability, 2010	655,443
Indexation	-18,127
Estimated value of paid-in contributions for the ATP, 2010	7,093
Pensions drawn	-136,793
Value of other paid-in contributions for the ATP	131
Value of change in life expectancy	3,729
ATP liability to the economically active, December 31, 2010	511,476

Table C Analysis of the Change in Pension Liability to Retirees, ATP and Inkomstpension, 2010

	Inkomst- pension	ATP	Total
Pension liability to retirees, December 31, 2009	512,663	1,997,406	2,510,069
Additional liability to the economically active	144,086 *	136,793 **	280,879
Change in amounts disbursed	6,972	1,855	8,827
Pensions disbursed ***	-37,762	-182,436	-220,198
Indexation	-6,919	-25,949	-32,868
Value of change in life expectancy	4,587	17,017	21,604
Pension liability to retirees, December 31, 2010	623,627	1,944,686	2,568,313

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

** See Table B.

*** See Note 2.

The liability to retirees is changed by indexation and increased by higher life expectancy, and it is 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

	2010	2009
Pension disbursements from fund insurance	1,220	737
Pension disbursements from conventional insurance	144	92
Total pension disbursements	1,364	829
Transferred to European Communities	1	1
Total	1,365	830

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. In 2010, SEK 47 (28) million was disbursed in supplementary amounts, as shown in Note 24.

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 2010 the sum of SEK 0.5 million was transferred from the premium pension system.

Note 16 Return on Funded Capital

	Fund insurance	Conventional insurance	2010 Total	2009 Total
Stocks and shares	44,933	50	44,983	81,342
<i>of which: Direct return</i>	4,423	11	4,434	6,181
<i>Realized and unrealized capital gains</i>	40,510	39	40,549	75,161
Bonds and other interest-bearing securities	-241	-18	-259	-7
<i>of which: Direct return (net interest)</i>	3	-1	2	3
<i>Realized and unrealized capital gains</i>	-244	-17	-261	-10
Net foreign-exchange gain/-loss	-3,282	-	-3,282	-770
Subtotal, return	41,410	32	41,442	80,565
Change, conventional insurance	-	1,042	1,042	436
Total	41,410	1,074	42,484	81,001

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 0.32 percent of average capital.

Note 17 Costs of Administration

	2010	2009
Operating expenses	340	340
Financial items, net	-1	-4
Total	339	336

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 operating expenses. Total costs of administration in 2010 were SEK 346 (343) million, of which SEK 7 (7) million are included in Change, conventional insurance, 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

	2010	2009
Confirmed premium pension credit earned in 2009	31,528	-
Confirmed premium pension credit earned in 2008	-	30,987
Total	31,528	30,987

In the premium pension system the contribution revenue is equal to new pension credit including interest for the period during which contribution moneys are managed until they are invested in the funds chosen by the insured. Also included are changes in pension credit earned in previous years and distributed rebates of fund management charges.

Note 19 Change in Value

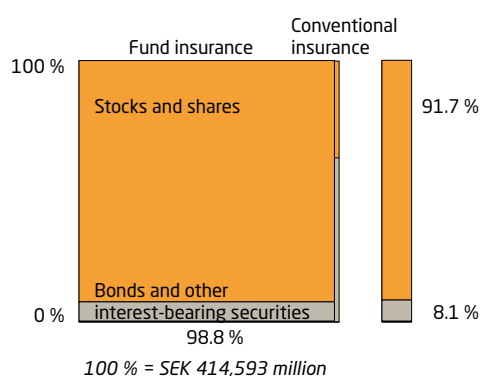
The pension liability was changed by the return on premium pension funds totalling SEK -41,442 (-80,565) million; see Note 16.

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 2010 inheritance gains distributed were SEK 670 (655) million; this amount was determined by the sum of the capital released by deaths in calendar year 2009. Inheritance gains distributed include SEK 22 (12) 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 calendar year 2010, a total of 7,938 (7,990) persons transferred an aggregate amount of SEK 57 (54) million between spouses or registered partners.

Note 21 Deduction for Costs of Administration

The amount of SEK 546 (447) million is for fees deducted by the Swedish Pensions Agency to finance the costs of the administration of the premium pension system. The average fee for 2010 was 0.16 (0.19) percent of the account balances of pension savers with a ceiling of SEK 125 (110). 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 2010.



Note 22 Insurance Assets

	Fund insurance	Conventional insurance	2010 Total	2009 Total
Stocks and shares	378,184	1,831	380,015	319,032
Bonds and other interest-bearing securities	30,340	3,112	33,452	23,334
Trade in progress and inheritance gains arising	1,116	10	1,126	1,217
Total	409,640	4,953	414,593	343,583

Inheritance gains arising for 2010 total SEK 864 (646) million, of which fund insurance accounts for SEK 842 (632) million and conventional insurance for SEK 22 (14) million; these gains will be distributed to pension savers in 2011.

As of December 31, 2010, the number of premium pension savers totaled 6,274,918, of whom 6,140,171 had invested their savings in fund insurance and 134,747 in conventional insurance. The number of premium pension savers receiving pension disbursements was 777,438.

Note 23 Other Assets

	2010	2009
Temporarily managed preliminary contributions	28,652	27,584
The Swedish Pensions Agency's administrative inventory of fund shares (trading inventory)	46	87
Other assets	2,514	2,019
Share of consolidated assets of the Pensions Agency	34	-
Total	31,246	29,690

The temporary management of preliminary contributions is for pay-in year 2010.

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.

Of the consolidated assets of the Pensions Agency, an estimated 18 percent apply to premium pension operations. The calculated proportion of consolidated assets includes intangible long-term assets, tangible long-term assets, customer accounts receivable, other receivables, prepaid expenses and accrued revenue. For 2009 the corresponding types of assets are included in other assets.

Note 24 Change in Results Brought Forward

	Fund insurance	Conventional insurance	2010 Total	2009 Total
Opening results brought forward:				
Consolidation fund	-1,411	655	-756	-1,276
Rebate paid from consolidation fund*	-	-47	-47	-28
Recalculated opening results brought forward	207	1,042	1,249	547
Total results brought forward	1,204	1,650	446	-757

* The rebate paid in 2010/2009 is included in the item Opening results brought forward in the balance sheet.

The Swedish Pensions Agency reports negative results brought forward for its overall 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

	2010	2009
Pension liability, fund insurance	409,636	341,371
Pension liability, conventional insurance	3,288	1,543
Total	412,924	342,914

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

Table A Analysis of the Change in Pension Liability, Fund Insurance, 2010

Pension liability, fund insurance, December 31, 2009	341,371
Confirmed premium pension credit earned in 2009*	28,625
Inheritance gains distributed**	-653
Change in value	41,410
Deduction for costs of administration	-546
Decrease in liability because of pensions withdrawn, 2010	-1,221
Inheritance gains arising	653
Other	-1
Premium pension capital as of December 31, 2010	409,638
Adjustment affecting premium pension capital***	-2
Pension liability, fund insurance, December 31, 2010	409,636

* Includes -2 in tax assessment changes and changes in pension credit.

** Inheritance gains, capital released in 2009, distributed in 2010.

*** Transfers to European Communities, etc.

Table B Analysis of the Change in Pension Liability, Conventional Insurance, 2010

Pension liability, conventional insurance, December 31, 2009	1,543
Confirmed premium pension credit earned in 2009*	2,905
Inheritance gains distributed**	-17
Change in value	108
Decrease in liability because of pensions drawn, 2010	-144
Other	10
Change in pension liability***	-1,117
Premium pension capital as of December 31, 2010	3,288
Pension liability, conventional insurance, December 31, 2010	3,288

* Includes 0 in tax assessment changes and changes in pension credit.

** Inheritance gains, capital released in 2009, distributed in 2010.

*** Change in pension liability includes -7 in costs of administration and +17 in inheritance gains arising 2009; see Note 24, Change in Results Brought Forward.

As from 2007, results brought forward are excluded from the calculation of the pension liability. The pension liability is changed by new pension credit earned, changes in the extent of pension withdrawal, changes in tax assessment, changes in value of assets, costs of administration, pension disbursements and estimates of future mortality for the insured.

Note 26 Other Liabilities

	2010	2009
Liability relating to preliminary contributions	28,652	27,588
Other liabilities	3,680	3,528
Share of consolidated Pension Agency liabilities	59	-
Pension Agency assets, liabilities and result, net	78	-
Total	32,469	31,116

Liabilities relating to preliminary contributions consist of unconfirmed pension credit for pay-in year 2010 and correspond to the assets invested under temporary management; see Note 23.

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

Of the consolidated liabilities of the Pension Agency, an estimated 18 percent relate to premium pension operations. The estimated share of consolidated liabilities includes other provisions, accounts payable to suppliers, other liabilities and accrued expenses. For the year 2009, the corresponding amount of liabilities is included in other liabilities.

Pension Agency assets, liabilities and result, net, refers to other agency operations; the assets amount to SEK 22 857 million, and the liabilities to SEK -22 935 million, for a net of SEK -78 million. The net amount is included in other liabilities in order for the total of assets, liabilities and result to balance in the balance sheet.

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

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.

According to LIP, premium pension operations are to 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.

$Income\ Index(t) =$

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

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

where

t = calendar year

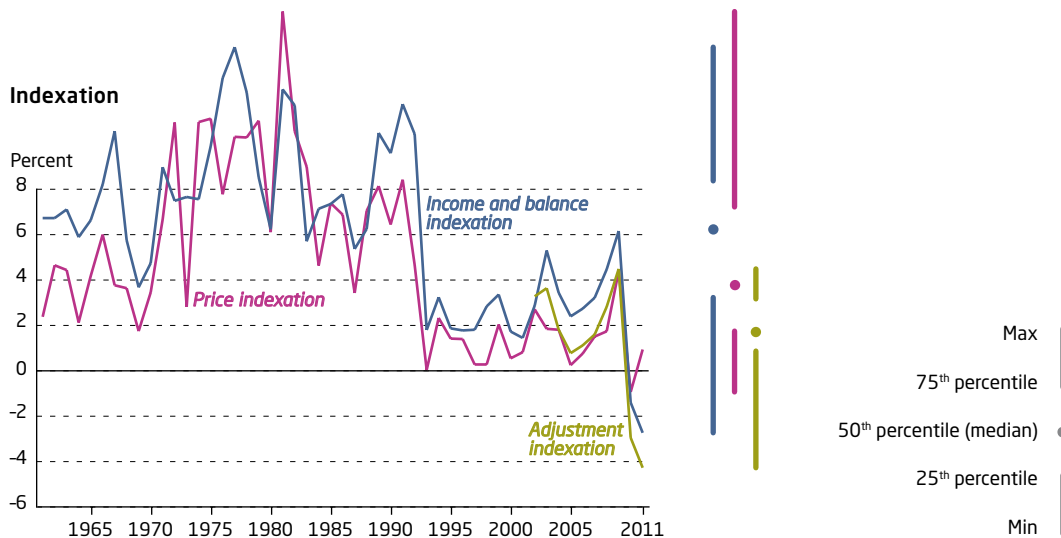
$CPI(t)$ = consumer price index for June of year t

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 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.

$$\text{Balance index}(t) = I(t) \times BR(t)$$

$$\text{Balance index}(t+1) =$$

$$\text{Balance index}(t) \times \left(\frac{I(t+1)}{I(t)} \right) \times BR(t+1) = I(t+1) \times BR(t) \times BR(t+1)$$

where

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

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

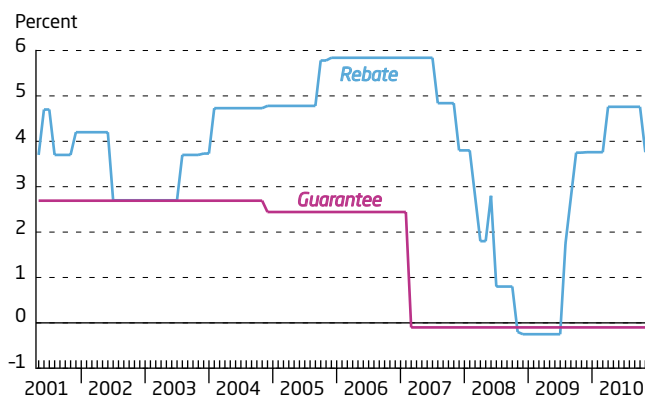
At the end of year $t-1$, indexation takes place via multiplication of pensions by the ratio between the balance index for year t and the income index for year $t-1$ divided by 1.016, and of pension balances by the ratio between the balance index for year t and the income index for year $t-1$. At the 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.

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

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

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

where

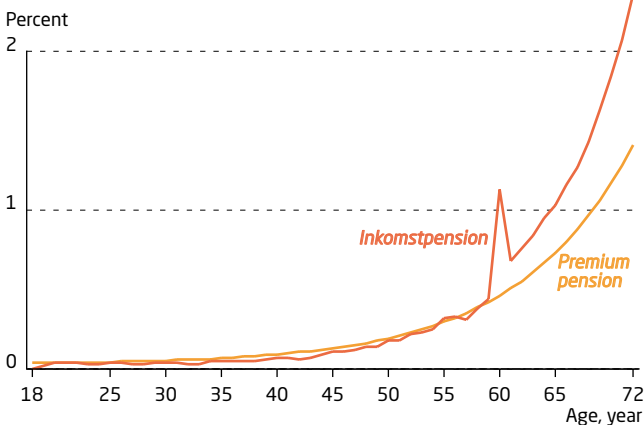
- i = age at end of year t
- $PBd_{i-1}(t-1)$ = total pension balances in year $t-1$ for persons dying in year $t-1$ in age group $i-1$
- $PB_{i-1}(t-1)$ = total pension balances in year $t-1$ for survivors in year $t-1$ in age group $i-1$
- $L_i(t)$ = number of survivors in year t out of 100 000 born 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; this effect is reported in Note 10. For the group dying before their 60th year, the difference is due to tax assessment

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.

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 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*} =

$$\frac{1}{12L_i} \sum_{k=i}^r \sum_{X=0}^{11} \left(L_k + (L_{k+1} - L_k) \frac{X}{12} \right) (1.016)^{-(k-i)} (1.016)^{-X/12} \text{ for } i = 61, 62, \dots, r$$

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

* 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.³⁰ 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 1946.³¹ 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, d , 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

³⁰ The formula applies in cases where one life is insured, i.e. where there is no survivor coverage.

³¹ Persons born in 1946 constitute the birth cohort closest to age 65 during the period 2010–2012. 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

value 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

Pursuant to Chapter 1, §§ 5 a and 5 b of the Earnings Related Old Age Pension Act (1998:674), the Swedish Pensions Agency is to calculate the balance ratio for each year in accordance with the following formula.

1. Balance ratio, BR ,

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

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

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

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

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

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 (200:193) 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

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

$\bar{T}(t)$ = 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, \bar{R} , is calculated as

$$\bar{R}(t) = \frac{\sum_{i=61}^{R^*(t)} P_i^*(t) \times G_i(t) \times i}{\sum_{i=61}^{R^*(t)} P_i^*(t) \times G_i(t)}, \bar{R} \text{ rounded off to nearest whole number} \quad (2.0)$$

where

i = age at year-end

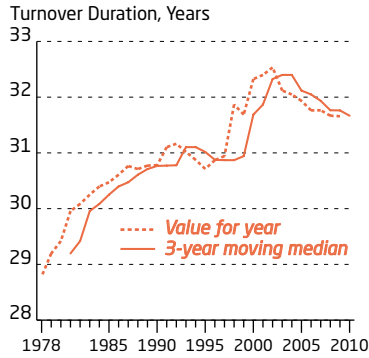
$R^*(t)$ = the oldest age group for which pensions have been granted in year t

$P_i^*(t)$ = 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 ,

$$T(t) = ID(t) + OD(t) \tag{3.0}$$



	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

* For amounts and values,
see Aktuella belopp at
www.pensionsmyndigheten.se.

List of Terms

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 this 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 contributions 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

premiépension

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 that include calculating the guaranteed pension and in the tax system for determining the basic deduction, currently equivalent to 42.3 percent of one price-related base amount for the year in which the income reported was earned. The price-related base amount is adjusted each year by the change in the Consumer Price Index (for June). In addition there is a higher price-related based amount. It 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 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 the pixel wall in the reception of the Swedish Pensions Agency in Stockholm. The colours are the profile and complementary colours of the Agency. According to the designer, the pixel wall represents all pension savers and pensioners together with all employees of the Swedish Pensions Agency.

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The Orange Report – What Is It?

The Orange Report 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. The report also covers the legacy of the ATP. The Swedish Pensions Agency and the National Pension Funds are the authorities responsible for managing this pension system. The Swedish Tax Agency also plays an important part, in collecting contributions and in other ways.

Annual contributions and premiums paid for national, occupational and private pensions add up to SEK 368 billion - total earnings in Sweden were SEK 1,296 billion (including earnings of the self-employed). This means that we set aside the equivalent of 28 percent of our wages and salaries for various pensions.

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. For occupational pensions and private pensions, the data are not entirely complete; for example, pension trust funds are not included.

To simplify, the Orange Report covers 64, 39 and 74 percent, respectively, of all pensions in Sweden. Thus, this report is appropriate reading both for those who wish to review the development of the national pension system and for those who would like to stay current more generally on pension-related issues in Sweden.

Orange Report and Sweden's Pensions in 2009

Billions of SEK

	Paid-in premiums	Capital managed Dec. 31	Disbursements	
● National pension	234	1,171 *	218 **	Orange Report
● Occupational pensions	119	1,403	60 ***	
● Private pension insurance ****	15	402	15 ***	
Total	368	2,976	293	

* Contribution asset not included.

** Includes only income-related pensions. Aside from these, there are disbursements of the guaranteed pension (SEK 19 billion), widow's pension (SEK 15 billion), housing supplements to pensioners and income support for the elderly (SEK 7 billion) provided by the central government.

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

**** Including individual pension saving (IPS).

