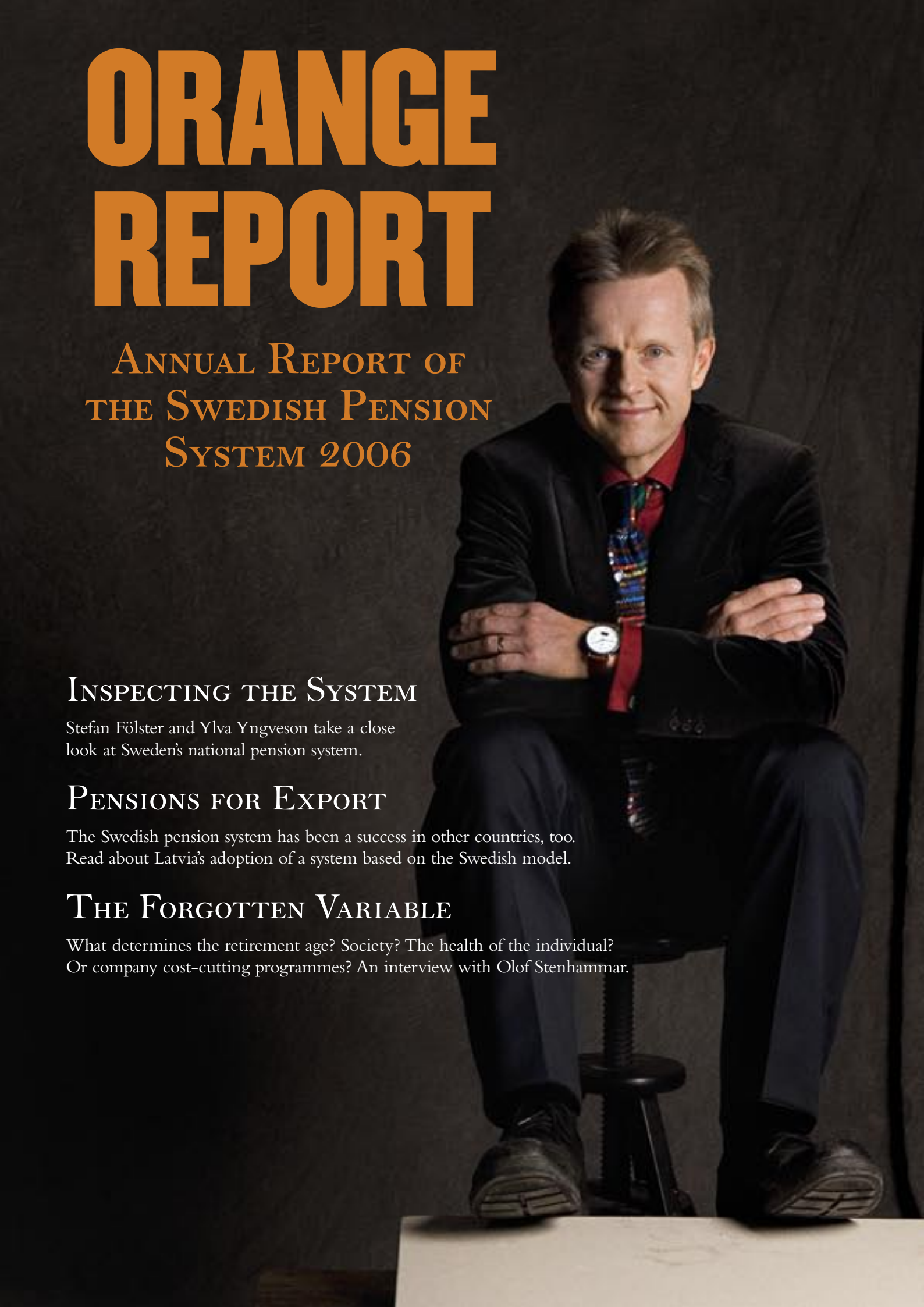
ORANGE REPORT

Annual Report of the Swedish Pension System 2006



Inspecting the System

Stefan Fölster and Ylva Yngveson take a close look at Sweden's national pension system.

Pensions for Export

The Swedish pension system has been a success in other countries, too. Read about Latvia's adoption of a system based on the Swedish model.

The Forgotten Variable

What determines the retirement age? Society? The health of the individual? Or company cost-cutting programmes? An interview with Olof Stenhammar.

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Welcome to the Orange Report for 2006

Curt Malmborg, Director General, Swedish Social Insurance Agency

Why is Stefan Fölster, Chief Economist at the Confederation of Swedish Enterprise, on the cover of the annual report of the Swedish pension system? Because the national pension system concerns not just those of us in the "public-pension industry". We would like more people to read this publication.

That is one reason why we have modified the title and content of the Annual Report. Experts need not worry; the massive, complex tables and projections, full of precise figures and such a success in previous reports, are still there. But we have added an introductory discussion, where we review features of the pension system that cannot be compressed into tables and graphs. For assistance we have turned to people outside the agency. For example, we have interviewed Stefan Fölster, shown on the cover, and Ylva Yngveson to find out what they think of the "new" pension system. You can also read about how Latvia adopted a pension system along the lines of the Swedish model. And we have invited Olof Stenhammar to talk about a variable that has been overlooked in discussions on the subject: competence, and the experience and resources that older people can contribute. The words "Orange Report" have been added to the annual report to highlight the report's direct link with the content of the "Orange Envelope," the pension statement distributed annually to everyone covered by Sweden's national pension system. On page 51 you will find a summary of the roughly 6.5 million pension statements mailed this February. That single page shows an income statement and a balance sheet for a largely unfunded pension system – a unique type of presentation for Sweden.

The Annual Report of the Pension System is also special in that the reporting organization cannot affect the revenue shown in any way. As for the year's figures, it may be noted that the pension system's principal "revenue item," referred to as the increase in the contribution asset, was SEK 224 billion in 2006, up by 3.9 percent. The increase was due primarily to strongly rising incomes in Sweden for the past three years.

Once again, welcome to the "Orange Report". Nowhere else will you find a better description of the development and current status of Sweden's national pension system.

Inspecting the System

We invited Stefan Fölster, Chief Economist at the Confederation of Swedish Enterprise, and Ylva Yngveson, Director of the Personal Finances Institute at Swedbank, to share with us their views on the pension system.

Text: hans bolander
Photography: magnus magnusson / agent bauer

Sweden has a stable pension system. But naturally some changes are needed, both within the system and outside it. Older people must be encouraged to work, not hampered by tax systems and collective bargaining agreements, suggests economist Stefan Fölster. Raise the ceiling on earned pension credit, recommends Ylva Yngveson, adviser on personal finances.

Familiar to many as Chief Economist at the Confederation of Swedish Enterprise (Svenskt näringsliv), Stefan Fölster is quite used to presenting his views on Sweden's economy and on decisions of economic policy. Ylva Yngveson, Director of the Personal Finances Institute (Institutet för Privatekonomi) at Swedbank, considers reports and studies on the economy from the standpoint of the individual. We met for a discussion on Sweden's "new" pension system – its principles were actually adopted back in 1994, but were not put into operation until 2003.

What are the greatest strengths of the pension system?

"Its durability; it will last for future generations and withstand changes in the factors on which pensions are based. If a more restrictive policy is needed, it will be applied through the system's automatic braking mechanism," replies Ylva Yngveson. Her view is shared by Stefan Fölster:

"Yes, because of the pension reform, no further political decisions are necessary to provide stability. There is less risk of political mistakes along the way. Stability was in focus when the system was introduced; everyone had fresh memories of the country's economic crises."

Ylva Yngveson sees pension credit for years with small children as another positive feature of the system; it provides sufficient compensation for most parents of small children.

"I also think that the model of income indexation used is far better than price indexation for maintaining the purchasing power of future pensioners at an acceptable level. There will be greater equality between the economically active and pensioners. But people may disagree with giving new pensioners an "advance" that will be repaid later through lower indexation. Should politicians be allowed to decide when people have the greatest need for money?

"Another strength is Sweden's demography. We have a reasonably good birth rate, we have immigration and we have a group of seniors who are relatively healthy and prepared to go on working past the ages of 65–67," interjects Stefan Fölster. But he is less pleased about linking pensions to growth in earnings:

"The development of earnings has a major impact on our pensions, whereas the return on capital of the Premium Pension Authority (PPM) is of minor importance. Is this really the right balance? Our wages and salaries are admittedly increasing at a decent rate just now, but we have had prolonged periods of poor wage growth in Sweden. And it appears that with globalization the return on capital will go up. For these reasons we should gradually enlarge the capital component of the pension system, in other words, the role of the premium pension. Also, the costs of administration should be lowered further. While the PPM costs

less than ordinary fund management, there is further room for improvement."

Ylva Yngveson notes that the stability of the pension system also has a downside for pensioners:

"There is greater uncertainty for the individual. It is harder to foresee how large a pension will be in relation to final earnings, and to understand the consequences of different actions taken during the course of an individual's life. A few years away from working life, or with low income, will have significant consequences. The safety net is not so finely meshed any more."

Neither Ylva Yngveson nor Stefan Fölster can find much in favour of the ceiling on pension credit. No pension credit is granted on earnings above 8.07 income-related base amounts (equivalent in 2007 to about SEK 30 850 a month), but employer contributions to the pension system are levied on these earnings just the same.

"The system ought to be symmetric. If you get no pension credit for income above the ceiling, then you shouldn't have to pay pension contributions on that income, either. Those contributions are an additional tax that you will find in few other countries," says Stefan Fölster. Ylva Yngveson points out another effect:

"It is difficult to make up for a few years of very low income by earning a high income later on. The ceiling limits that possibility. In this way, a premium is placed on many years of steady earnings compared to a more varied income history. That reduces the incentive to try something different, like starting your own business. The ceiling should be raised above its current level."

What do you think about the future level of public pensions?

"They will probably give people enough to get by, but with a considerably lower living standard than during their economically active years. Especially considering that we are healthy and are living longer," answers Stefan Fölster.

Ylva Yngveson notes that pensions were not very high under the old system, and they probably will not be under the new one, either.

"Everyone should ask this question: will I be content with my living standard as a pensioner? Occupational pensions, which most people have, will be essential to a decent retirement income."

Is the information provided about the pension system satisfactory?

"Yes, the statement in the orange envelope is well organized and contains a lot of relevant information. It's ambitious, but it may still be hard to understand for someone who is not familiar with the system," answers Ylva Yngveson.

"The information on the home page of the Swedish Social Insurance Agency is very clearly presented. The page where you can see the different parts of your pension is good. Keep it! But it is a pity that the pages with more detailed information were taken away."

What do you think of this annual report?

"It is incredibly comprehensive and ambitious, with a lot of technical terms and concepts that are only understandable if you are extremely well informed or interested. It is full of useful basic information, diagrams and illustrations," says Ylva Yngveson. Stefan Fölster agrees:

"The income statement and the balance sheet present a fairly accurate picture of the pension system, but probably not many can understand it. It would be good to have an even clearer model."

In your opinion, what possible improvements could be made in regard to pensions and the pension system?

"The size of your pension depends on how long you work. But on today's labour market, both tax provisions and collective bargaining agreements make it hard for someone past 65 to get a job. Also, employer contributions paid on behalf of older employees are far greater than the resulting benefits. If you are 65 or older, you cannot normally receive either unemployment compensation or sickness benefits," says Stefan Fölster.

"As a country we have a lot to gain by making it easier for older people to find work."

Pensions for export

Latvia has adopted a pension system along the lines of the Swedish model, but with certain adjustments. We have interviewed several of those involved in this complex project. One of them is Vladimirs Makarovs.

Text: willy silberstein
Photography: jesper brandt/agent bauer

As is widely known, the Kingdom of Sweden is heavily dependent on selling products and services to other countries. For most people, the engineering industries, forest products and music come to mind. But in fact the Swedish pension system has also been exported to several countries.

In large measure, Sweden has served as a model for the pension systems of other countries because of the World Bank. A number of years ago, there was concern at the World Bank that the pension systems in a number of countries were unsustainable. In various countries, the age structure of the population posed a risk of economic problems. There would be too few younger, economically active people in proportion to the number that had stopped working and begun drawing a pension.

The World Bank wrote a book on the subject. At about the same time, senior officials at the Bank learned that Sweden was introducing a system that looked interesting. The Bank sent a team of experts over here. They came, they saw – and they liked what they saw. Meanwhile, Latvia was considering whether to adopt a new pension system. So the World Bank brought Latvian officials together with Swedish experts.

That was the beginning of far-reaching collaboration that led to Latvia's adopting substantial portions of Sweden's pension model.

But obviously this was a very complicated process. Especially since Latvia had recently changed its economic system, abandoning the Soviet model of a planned economy in favour of a market-oriented economy.

”There were many things to consider,” as Professor Edward Palmer at the Swedish Social Insurance Agency (SSIA) diplomatically put it. One of them was that the administrative system inherited from the Soviet era was totally incompatible with the high-tech requirements of the Swedish model.

Also, people were not used to treating customers properly. The word ”service” was not the first to be uttered when relations with the public were discussed. And, not least, the labour market in Latvia was simply chaotic. Thus, conditions were far from ideal for radical transformation of a pension system. The official unemployment rate was 15 percent, and 30 percent of the labour force worked in the “informal” sector. In other words, the economy was in a nose dive, with gross national income dropping by a full 30 percent between 1990 and 1994.

One of those involved in the transition was Vladimirs Makarovs, then Minister of Social Affairs in Latvia. Makarovs says that working with the Swedes went well, but he also makes clear that further measures are needed for the system to function properly. The Swedish pension system is stable, whereas Latvian policy makers must still be ready to step in and prevent problems from arising.

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One problem still unresolved is that some 50 000 Latvians work abroad, most of them in the Irish Republic, the United Kingdom and Germany. There is concern about possible difficulties in managing their pensions in Latvia, explains Makarovs.

Inflation is also a threat, he goes on to say. In Latvia, prices are soaring, and that calls for new decisions about the pension system by the country's political leadership. Those decisions have yet to be taken.

Professor Edward Palmer is satisfied at least with progress thus far.

”After many headaches and a few disappointments, the introduction was a great success,” comments Professor Palmer.

At the time Latvia joined the European Union, some EU bureaucrats went so far as to portray the country as a model to imitate in the area of pensions, even compared to some of the old EU members in Western Europe.

After Latvia a number of other countries have sent delegations over here or hosted visits from Sweden. One of these countries is Poland. In addition, Russia and Kirgizistan have adopted a portion of the Swedish model. Finland has introduced an equivalent of Sweden's annuity divisors. Japan has enacted balancing provisions allegedly inspired by those in Sweden. And there have been exchanges of information with other major European countries like France, Germany and the United Kingdom. But perhaps the most frequent contact has been with Norway, where a detailed proposal for a new pension system is currently being discussed.

Now one could go on singing the praises of the Swedish pension model. But as with so much else in this world, there are two sides to introducing this model in other countries.

Ole Settergren, head of the Pensions Department at the SSIA, cites the case of Argentina. As he reminds us, some attribute that country's economic problems in the first years of the 2000's partly to its efforts to begin funding pension capital, a decision based to some extent on the advice of the World Bank. Argentina sought to do what Sweden now does to a very limited extent through the premium pension.

”There may have been an unquestioned belief that pension solutions could be transferred from country to country without regard to local conditions, a kind of assumption that 'one size fits all',” says Ole Settergren.

”Simple solutions are in demand, and we have attracted attention. But our solution is far from simple; it is the product of 10 years of political negotiation. Sweden has succeeded in thoroughly overhauling its pension system. This change has turned anticipated deficits into surpluses, an unusual accomplishment. It does not mean we have found some miraculous recipé for all countries.

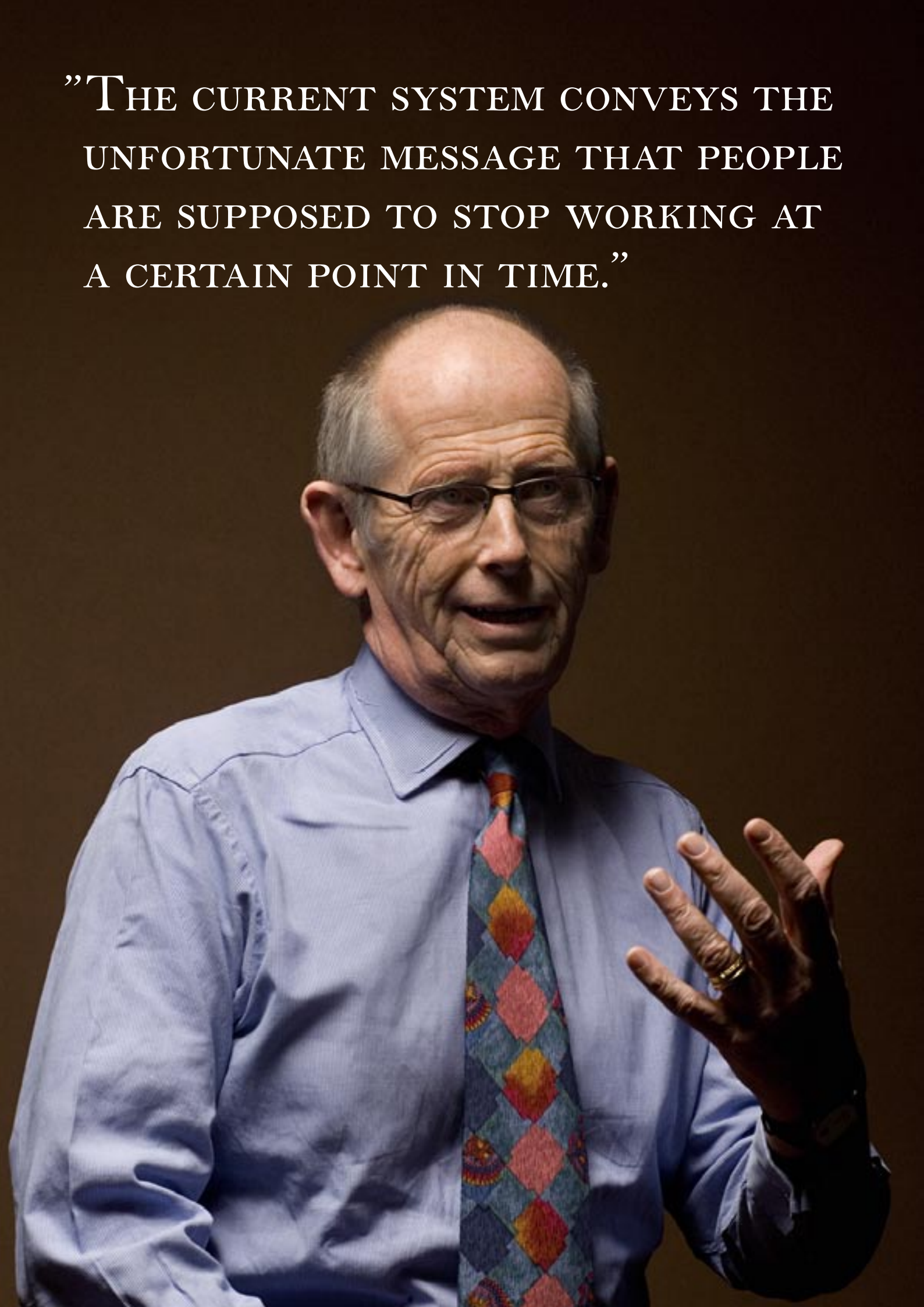
”One more thing: the new inkomstpension has not yet been given a political stress test; that will have to wait until the next economic downturn.”

Still, the Swedish model has been held out as an example for other countries. Sweden has been frequently consulted and has provided advice and expertise. What has Sweden gained from that?

”Good will,” quickly replies Professor Palmer. ”It has given Sweden a very good reputation. Thanks to what Sweden has done, the World Bank provides the country with favourable publicity all over the globe.”

But there may also be a more specific bonus for us. In every case where a country is inspired by our pension system to consider pension reform, the model is examined in minute detail. Sweden benefits from this analysis by learning something new about its own system.

Now and again a taxpayer will ask whether Sweden could get a royalty on this somewhat atypical export product. But no such luck; the honour will have to do. There can be no copyright protection for legislation, though a good reputation may be worth something.


”The current system conveys the unfortunate message that people are supposed to stop working at a certain point in time.”

The forgotten variable

Just because you have turned 65 does not necessarily mean you want to stop working. Olof Stenhammar, entrepreneur and business executive, talks about the retirement age and what determines it.

Text: anders andersson
Photography: jesper brandt/agent bauer

People born in the 1940's are now starting to pass the magic age of 65. More of them than ever "officially" retired last year. One of them was hyperactive business executive Olof Stenhammar. He thinks it is time to scrap the "fixed" retirement age:

"There is an unreasonable focus on the age of 65. Your health and what you want to do, not your age, should determine when you retire."

He is annoyed by all the invitations he gets from pensioners' associations and activities for seniors now that he has reached 65:

"It's ridiculous, of course. Nothing changes just because you pass a certain age limit. The current system conveys the unfortunate message that people should stop working at a certain point in time." Today an employee has the right to keep working until 67, and to start drawing a public pension at age 61.

"The system should be made even more flexible. I don't have any patent solution for how to do that. But I think that both the government and employers often have a fixation about age."

Personally he has no intention to stop working. He now plans to build a hotel at Siggesta, his "experience centre" in Värmdö, outside Stockholm; the place already has a restaurant and a concert hall. He also does volunteer work in the sports movement, for the Swedish Society for Saving Shipwrecked Persons, and for Mentor, the international anti-drug organization. In addition, he is chairman of the board at Ratos, a company listed on the stock exchange, but he intends to resign as chairman at OM (now OMX, which today owns stock exchanges in Sweden and elsewhere). He founded the company and built it up from the very beginning.

"But my decision to step down has nothing to do with age. I want more time for my own entrepreneurial activities," he explains. He realizes that he belongs to a small privileged group who can choose to work only with what they like and find stimulating. And he can afford to invest in Siggesta even if he makes no money on it.

"I have great respect for people with exhausting, boring jobs who want to retire early. The time of retirement is a personal matter and depends mostly on one's health."

"Some say that they ought to quit working to provide job openings for young people. That argument may be ap-

pealing, but it doesn't hold up." Like most people, he knows that society benefits when as many as possible continue working after 65.

With two new tax rules the Government also wants to encourage people to keep working after 65:

- An employer who hires someone born in 1938 – 1941 is exempt from all payroll charges except the pension contribution of 10.21 percent, which the employee gets back in the form of a higher pension.
- Also, an employee receives a tax deduction for working, which is larger for people who turned 65 or older last year.

In time it will also be necessary to work longer in order to balance central government finances. Now large numbers born in the 1940's are retiring. As life expectancy lengthens, the proportion of older persons is rapidly rising.

Statisticians estimate that in 30 years 24 percent of the Swedish population will be over 65, compared to 17 percent today. There is already a noticeable upward tendency in the actual retirement age, which according to SSIA statistics is now over 63, the highest in Europe after Iceland. But people who have been forced to retire by illness, for example, before the age of 47 are not included in these statistics. The actual retirement age has risen by about one year since 1998, increasing GDP by 2.5 percent per year. At the same time, a report from Statistics Sweden and Umeå University shows that a majority of older people want to stop working before they reach 65. Eight out of ten say that they would like to quit in order to have more leisure time, and 30 percent cite health as a reason. But once they have stopped working, many of them want to go back. The report shows that one pensioner out of three regrets not having worked a few more years. People who can choose when to retire seem to be most satisfied as pensioners, according to the report. Almost all who want to work after age 65 say the reason is that they enjoy what they do.

People who can afford full or partial early retirement also seem most satisfied. Thomas Franzén, new chairman of AMS, the Swedish Labour Market Board, resigned as head of Sweden's National Debt Office three years ago, just before turning 60, not because he was tired of his job, but because he wanted to do something else. Precisely the desire to do something different is one of the main reasons for early retirement. For him that something was painting. In his flat with a lovely view over Lake Mälaren, he has set up a studio, where he spends at least as many hours as with a full-time job. But since he left the National Debt Office, he has taken on new responsibilities: He is chairman of the board at both the PPM (Premium Pension Authority) and AMS. He is also on the board of the stock exchange.

"These jobs give me energy when I paint. We people feel best if we are using different parts of the brain and have variety in our lives," he says. As chairman of AMS, he now has a reason to consider how to get the most out of what older employees have to offer at workplaces:

"Employees of different ages can have a stimulating effect on each other; both companies and public agencies must make that happen. The various groups at workplaces should have the greatest possible diversity."

Companies need to take advantage of the experience and resources that older people can provide, while also getting new blood from younger people. Employer turnover should not be too low. This can be a problem for technology-intensive companies like Ericsson.

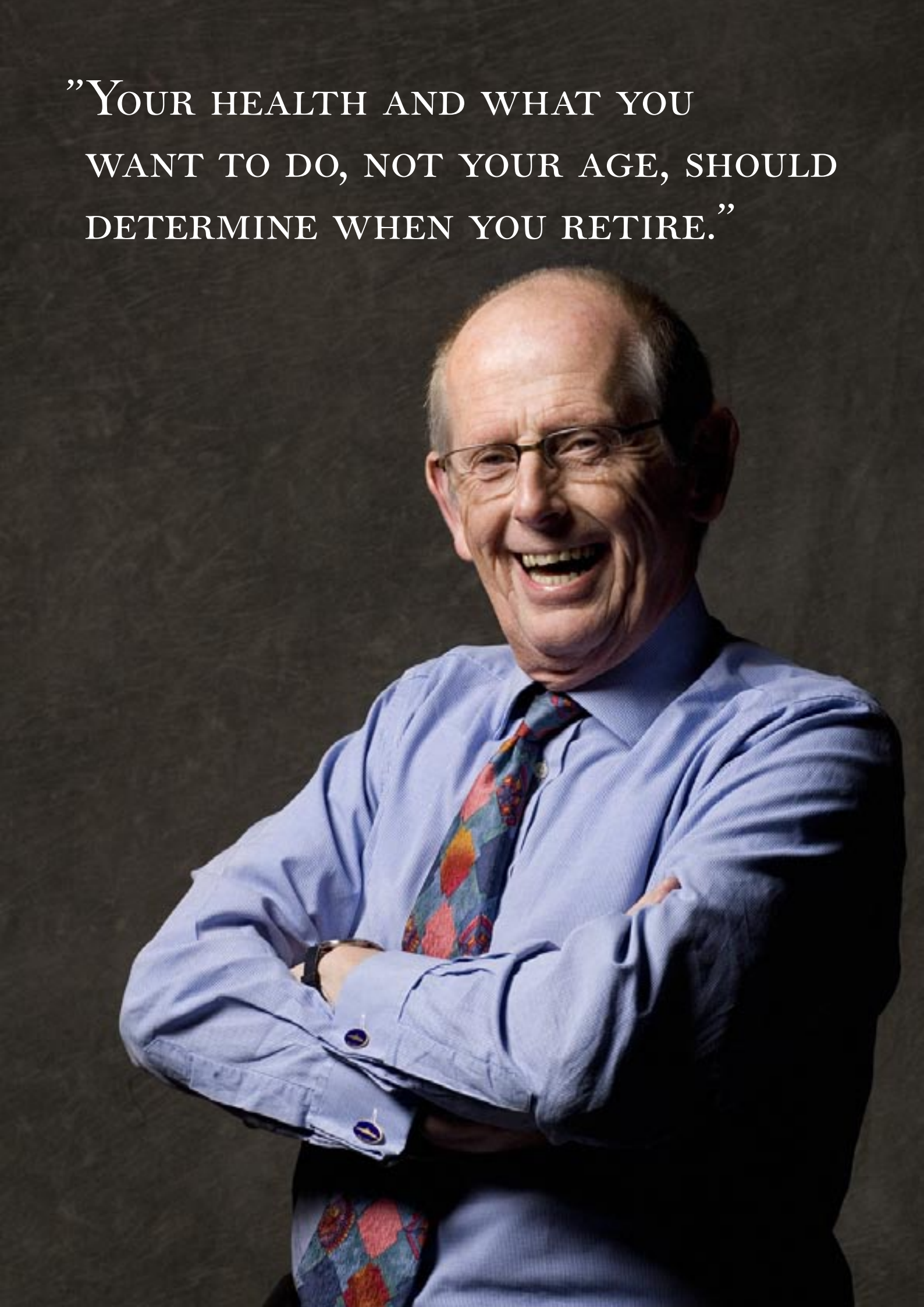
"The problem is not the age of employees, but the age structure and employee turnover," says Marita Hellberg, director of human resources at Ericsson. In the personnel cutbacks of 2001–2003, the youngest, most recently hired employees had to go, while the oldest ones were retired on negotiated pensions. In the end, almost all company employees were between the ages of 35 and 55, and nobody wanted to quit. To make it possible to hire young engineers right out of university, everyone who had passed age 35 and who had been with the company at least six years was offered the chance to leave with a severance payment, normally a year's salary. A thousand of the company's 22 000 employees accepted the offer, but 30 of them were considered so vital to the company that management would not let them go.

"We now have a better balance between younger and older people at the company," says Marita Hellberg.

But otherwise the practice of giving severance pay or a negotiated pension to employees who quit seems to be going out of style. Many companies find it too expensive. For a 62-year-old who retires three years early with 70 percent of a monthly salary of SEK 30 000, the lump-sum cost to the company is more than a million.

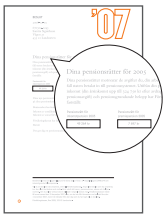
"A few years ago companies were very liberal with negotiated pensions, but were not given much credit for it by employees. Now we find less generosity," says Cenneth Eriksson, responsible for company markets at Alecta, an institution managing occupational pensions. Instead companies try to give older employees new and meaningful duties. Employers and employees may not be as age-fixated as Olof Stenhammar would argue. Those of us born in the 1940's, at least, view work and age quite differently than our parents. They went to work right after elementary school, often with a secure lifetime job at the same workplace. When they reached 67 or 65, they retired and were given a gold watch. Many of them were too worn out and drained to engage in any activity after retirement.

But today's new pensioners want to stay active after their 65th birthday. The only question is whether they should be active by continuing to work or by pursuing various leisure-time interests.


”Your health and what you want to do, not your age, should determine when you retire.”

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 basic features. For anyone wishing to understand the system more thoroughly, it should suffice to read this section.



Your income
↓
Pension contributions
=
Pension credit

Pension credit
+
Interest, etc.
=
Pension account

Pension account
Duration of retirement
=
Monthly annual pension

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 annual 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), accumulated interest and inheritance gains. The account is charged each year with a fee for administrative costs. The balance of the inkomstpension account is called the pension balance, while the balance of the premium pension account is called premium pension capital.

Proportion* Granted a National Pension at Different Ages, Percent

Birth Cohort	Age at first withdrawal 61	62	63	64	65	66	67	68
1938	3.7	2.3	2.3	2.1	77.5	4.1	3.2	0.8
1939	4.0	1.9	2.1	2.3	76.1	6.3	2.3	
1940	3.1	2.2	2.5	3.2	76.4	4.9		
1941	3.1	2.3	3.1	3.8	74.7			
1942	3.8	3.1	3.7	4.0				
1943	4.0	3.1	3.5					
1944	4.7	3.3						
1945	5.1							

* Proportions refer to new pensioners in relation to the potential number of pensioners in December 2006. Individuals who have only withdrawn their premium pension are not included in the table. Ages are as of December 31 of the year concerned.

One Krona of Pension Credit for Each Krona Contributed

The pension contribution is 18.5 percent of the pension base. The pension base consists of pension-qualifying income and pension-qualifying amounts. In addition to earnings, benefits from the social insurance and unemployment 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, studies and compulsory national service. The maximum pension base is 7.5 income-related base amounts (SEK 333 750 in 2006). Pension credit accrues 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. Transferred pension capital is currently reduced by 14 percent. The reasons are the assumption by the PPM that more such transfers will be made to women than to men, and the greater average longevity of women compared to men, so that pensions based on transferred credit will likely 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 amounts[2] 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.

For each employee, employers pay a pension contribution of 10.21 percent of that individual's earnings.[3] 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.

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 individuals 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 difference is due to the fact that the contribution base is reduced by the individual pension contribution of 7 percent when pension credit is calculated.[4] This means that the maximum pension base is 93 percent of 8.07, that is, 7.5 income-related base amounts. The maximum pension credit in 2006 was SEK 61 744.

[2] For 2006, 8.07 x 44 500 = SEK 359 115.

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

[4] 0.1721/0.93 = 0.185

National, Occupational and Private Pensions, 2005

Millions of SEK

	Paid-in premiums	Capital managed Dec.31	Disburse-ments
National pensions	203 176	962 267 *	169 232 **
Occupational pensions	105 493	993 912	25 456
Private pension insurance ***	14 540	373 203	16 532
Total	323 209	2 329 382	211 220

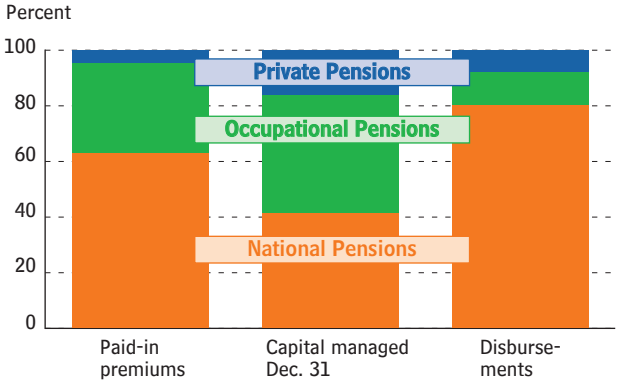
* Does not include contribution asset.

** Includes only income-related pensions. In addition, there are the following disbursements by the central government: guaranteed pensions (SEK 22.4 billion), survivor's pensions (SEK 13.8 billion), housing supplements to pensioners (SEK 7.1 billion) and income support for the elderly (SEK 0.4 billion).

*** Includes IPS (Individual Pension Saving: SEK 4.6 billion in premiums, SEK 49.0 billion in capital managed, SEK 0.7 billion in disbursements). Capital pensions are not included in premiums and capital managed (SEK 22.6 billion and SEK 24.0 billion, respectively).

Source: For disbursements of private pension insurance, the Swedish National Tax Board (compensation code 404). For other data on occupational pensions and private pension insurance, the Swedish Insurance Federation (Försäkringsförbundet).

National, Occupational and Private Pensions, 2005



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.[5] Each fund receives one fourth of the contributions and finances one fourth of pension disbursements. The monthly pension disbursements of the inkomstpension system thus come from the buffer funds. In principle, the same moneys that were paid in during the month are paid out in pensions.

The premium pension contribution, 2.5 percent of the pension base, is invested by the Premium Pension Authority (PPM) in interest-bearing assets until the final tax assessment is complete. Only then does the PPM

[5] 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.

know how much premium pension credit has been earned by each insured. When this amount has been determined, the PPM purchases shares in the funds selected by the insured. Contributions of insured persons who have not selected a premium pension fund are invested in the Premium Savings Fund. At the end of 2005, the premium pension system included 779 funds, administered by 83 different fund managers. When an insured person retires, the PPM sells shares in the retiree's funds, and the proceeds are paid out as a pension.

Funds in the Premium Pension System, 2006

	Number of registered funds, 2006	Managed capital, billions of SEK Dec. 31, 2006	Dec. 31, 2005	Dec. 31, 2004
Equity funds	571	141	99	61
Mixed funds	53	9	7	5
Generation funds	30	31	23	15
Interest funds	124	7	5	4
Premium Savings Fund (Equity fund)	1	79	58	40
Total	779	267	192	125

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 different circumstances, risks are spread to some extent. Since 1995, the average rate of return in the inkomstpension system, i.e. the change in the income index, has been 2.9 percent. The average annual variation in the rate of return, as measured by the standard deviation, has been 1.1 percentage points. Since the first payments into the premium pension system in 1995, the average return of the premium pension system has been 5.9 percent. The annual variations in this rate of return, as measured by the standard deviation, have been 14.7 percentage points.

Annual Income Indexation and Return on Premium Pension System, Respectively, 1995-2006, Percent

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Income indexation	1.8	1.8	2.8	3.4	1.7	1.4	2.9	5.3	3.4	2.4	2.7	3.2
Return, premium pension system*	4.6	4.6	4.6	5.0	3.7	0.7	–8.6	–31.1	17.7	7.9	30.5	12.2

* Capital-weighted return (internal rate of return)

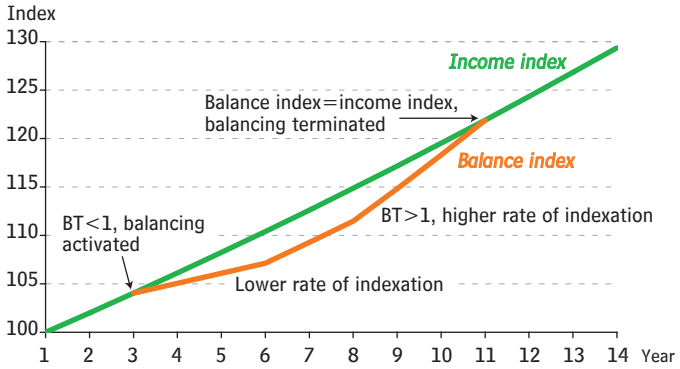
A Rate of Interest Other Than the Income Index – Balancing

Under certain demographic and economic conditions, it is not possible to earn interest on the inkomstpension account and the inkomstpension at a rate equal to the growth in average income and at the same time to finance

payments of the inkomstpension with a fixed contribution. In order to maintain the contribution rate at 16 percent, income indexation must be suspended in such a situation. This is done by activation of so-called balancing..

Dividing the assets of the system by the pension liability, we obtain a measure of the financial position of the system, the *balance ratio*. If the balance ratio exceeds one (1), assets are greater than liabilities. If the balance ratio is less than one, liabilities exceed assets, and balancing is activated. When balancing is activated, pension balances and pensions will be indexed by the change in a *balance index* instead of the change in the income index. The balance index changes as a result of the change in the income index and in the balance ratio.

Balancing



An example: If the balance ratio falls below 1.0000 to 0.9900 while the income index rises from 100 to 104, the balance index is calculated as the product of the balance ratio (0.9900) and the income index (104), for a balance index of 103. The indexation of pension balances is then 3 percent instead of 4 percent.[6] Indexation of pensions is reduced to the same extent.

If the balance ratio exceeds 1 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.

[6] The balance index for the next year is calculated by multiplying the balance index (103) by the ratio between the new and the old income index, multiplied in turn by the new balance ratio.

Pensions Reduced by Costs of Administration

The costs of administering the inkomstpension are deducted annually from pension balances through multiplication of these balances by an administrative cost factor (see Appendix A). This deduction is made only until the insured begins to withdraw a pension. At the current level of costs, the deduction for costs will reduce the inkomstpension by approximately 1 percent compared to what it would be without the deduction.[7]

In a similar manner, the costs of administering the premium pension 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. For an insured individual born in 1963, it is estimated that the deduction for administrative costs will reduce the premium pension by an average of 11 percent.

[7] On average, a pension balance remains in the system for 21.3 years, i.e. the pay-in duration of the system. This means that the annual deduction of 0.03 percent for administrative costs reduces the inkomstpension to $(1-0.0003)^{21.3} \approx 99$ percent of what it would have been without that 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.

As an example, suppose that an individual at age 65 has a pension balance of SEK 2 million and that the annuity divisor is 16. That individual's annual pension will then be SEK 125 000, or SEK 10 400 per month.

The inkomstpension is recalculated annually by the change in the income index minus the interest of 1.6 percentage points credited in the annuity divisor,[8] so-called adjustment indexation. This means that if wages and salaries increase by exactly 1.6 percent *more* than inflation, as measured by the Consumer Price Index, pensions will rise at exactly the rate of inflation. In other words, pensions will only be unchanged in real terms if wages and salaries go up by precisely 1.6 percent *more* than inflation. For example, if wages and salaries rise by 2 percent more than inflation, pensions will increase by 0.4 percent in real terms. If wages and salaries increase by 1 percent more than inflation, pensions will decrease by 0.6 percent in real terms. When balancing has been activated, the balance index replaces the income index in the indexation of pensions.

[8] It is somewhat misleading to write "minus"; the inkomstpension is recalculated by the ratio between the new and the old income index, divided in turn by 1.016

How is the Premium Pension Calculated?

The premium pension can be withdrawn 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 2.69 percent after deduction of 0.31 percent for PPM costs.

If the premium pension is withdrawn in the form of conventional insurance, the pension is calculated as a guaranteed life-long annuity payable in nominal monthly instalments. In this case the PPM sells the insured's fund shares and assumes the responsibility and the financial risk of investing the proceeds. The pension is calculated to provide an assumed nominal return that is presently 2.44 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 PPM 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 withdrawal. 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 survivor benefit is elected, the monthly pension will be lower.

Guaranteed Pension[9]

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/EES country is also credited toward a guaranteed pension.

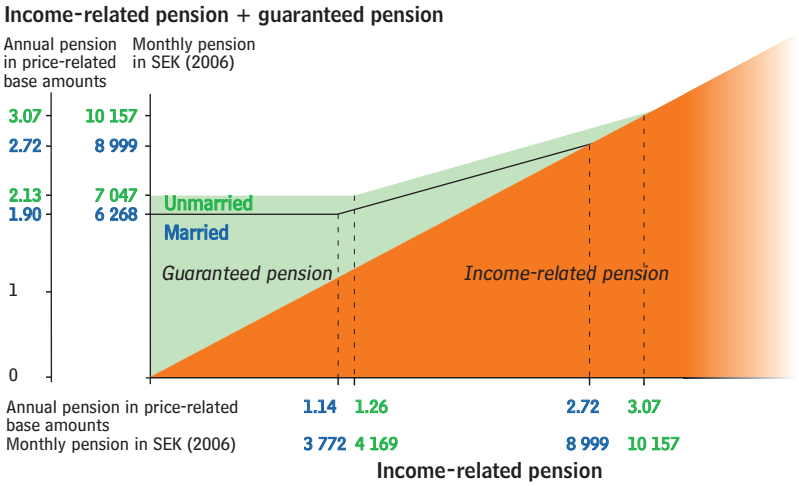
In 2006 the maximum guaranteed pension for a single pensioner was SEK 7 047 per month (2.13 price-related base amounts[10]), and for a married pensioner, SEK 6 286 per month (1.90 price-related base amounts). The guaranteed pension is reduced for persons with an income-related pen-

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

[10] In 2006 the price-related base amount was SEK 39 700.

sion. The reduction is taken in two steps: for low incomes, the guaranteed pension is lowered by the full amount of the income-related pension; for higher incomes, the guaranteed pension is decreased by only 48 percent. This means that a single pensioner with a monthly income-related pension of SEK 10 157 or more received no guaranteed pension in 2006. For a married pensioner the corresponding income limit was SEK 8 999.

An example: A pensioner living alone has an annual income-related pension equivalent to 2.26 price-related base amounts. The guaranteed pension is reduced by the full amount of income up to 1.26 price-related base amounts. The remainder of (2.13–1.26 =) 0.87 price-related base amount is reduced by 48 percent of the income above 1.26 price-related base amounts, or by 0.48 price-related base amount, for a guaranteed pension of 0.39 price-related base amount. The total annual pension will then be 2.65 price-related base amounts.



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

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 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. Beginning with the year when the individual reaches age 65, the ATP is adjustment-indexed in the same manner as the inkomstpension. For pension withdrawal before the year when the individual turns 65, the ATP is price-indexed.

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, 2006, with the addition of total estimated pension credit for 2006. 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 Social Insurance Agency (SSIA). 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.

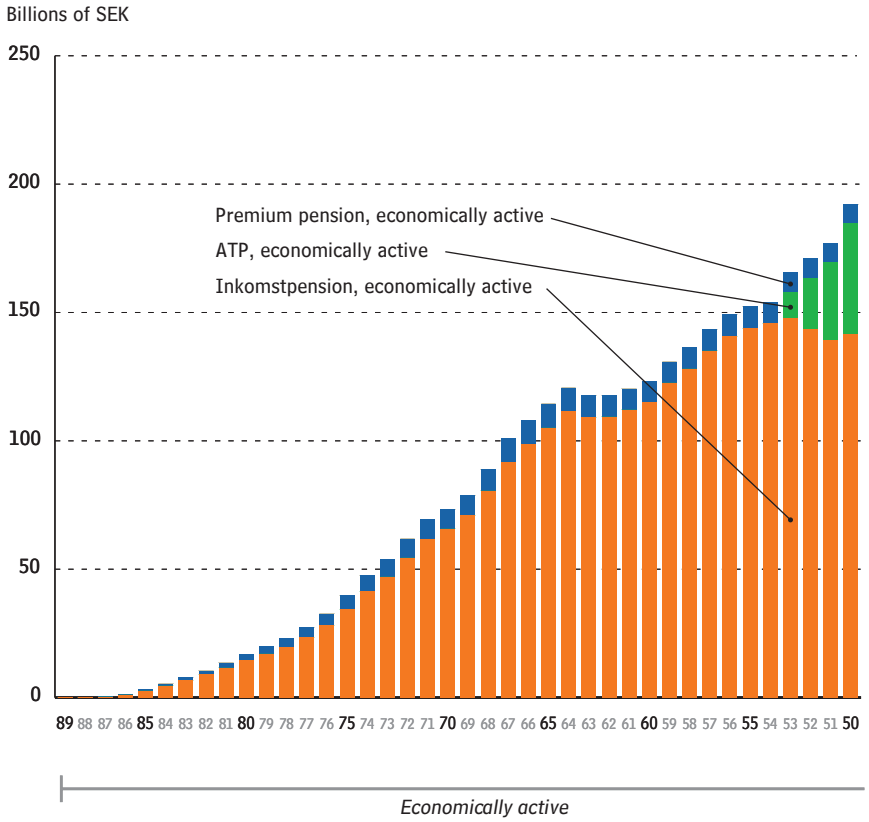
The premium pension liability to the economically active consists of the aggregate fund assets of the respective birth cohorts as of December 31, 2006.

Pension Credit Earned

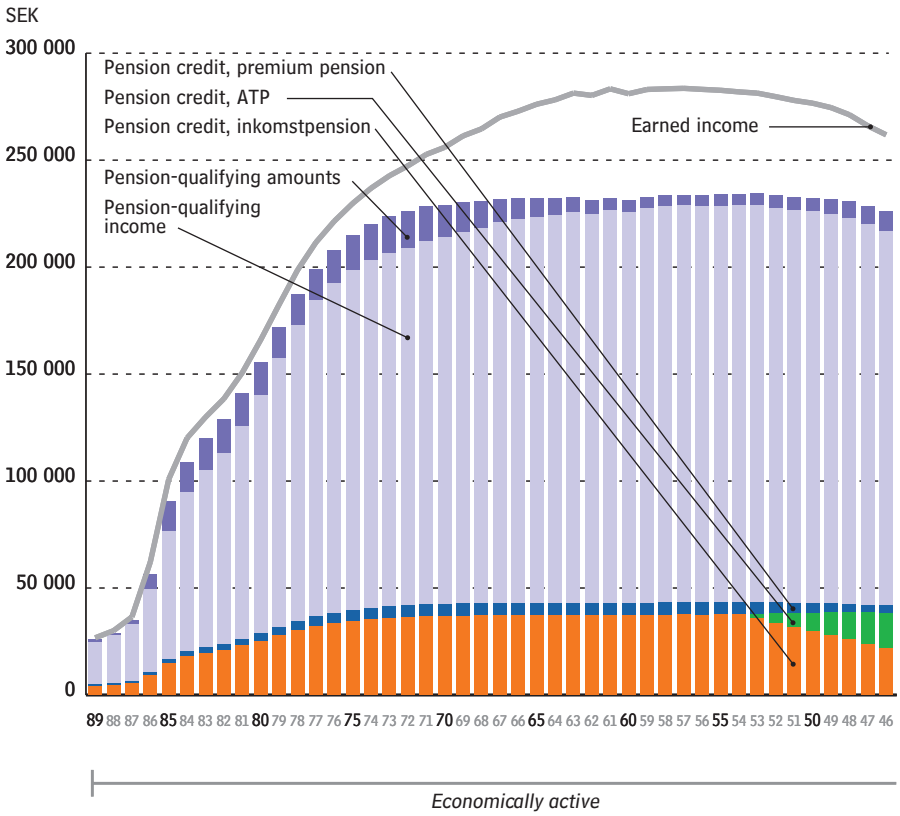
Data on income and pension credit are taken from SSIA records of earnings and refer to average amounts for all insured persons with positive pension credit earned in 2005. For the total pension credit earned in 2005, see the respective income statements and balance sheets for the inkomstpension and the premium pension.

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

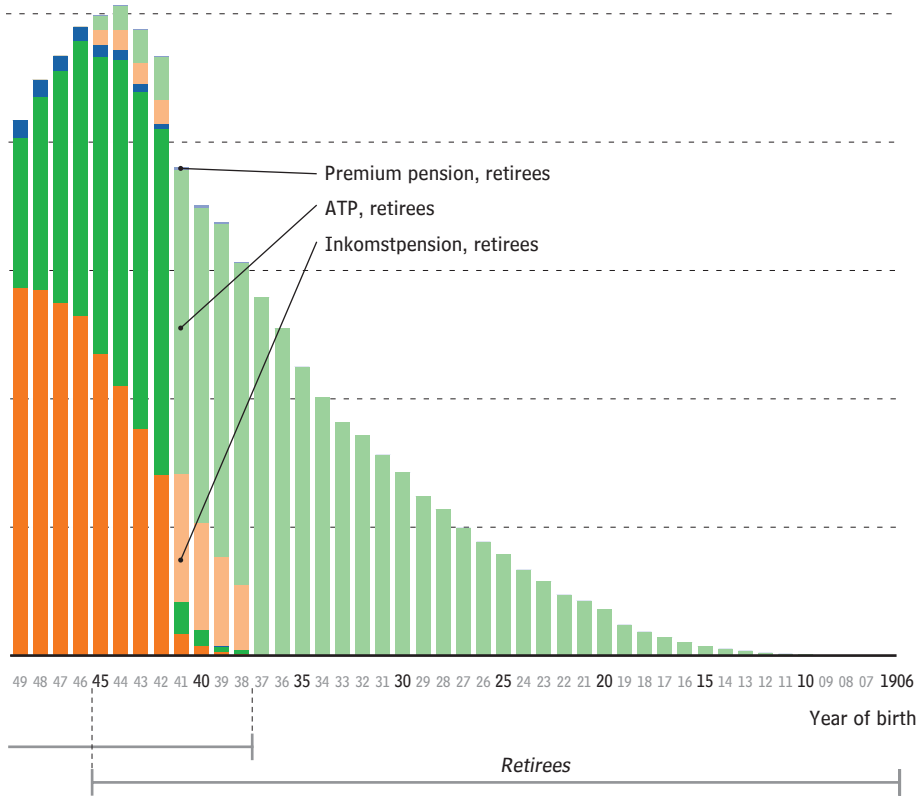
Total Pension Liability



Average Pension Credit Earned



as of December 31, 2006

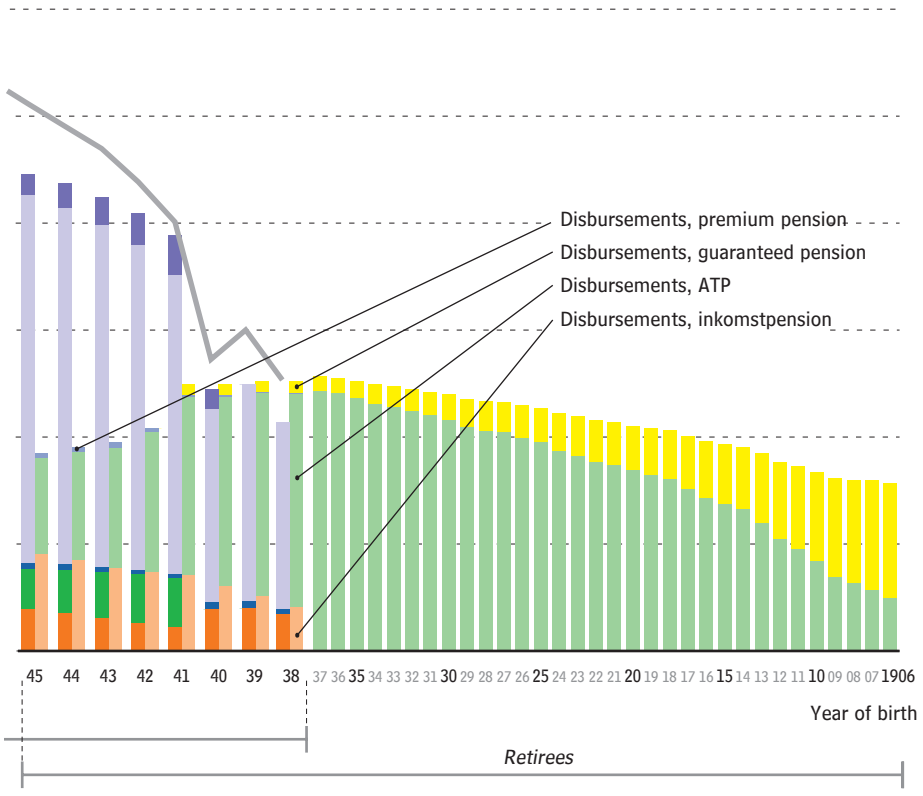


Pension Liability to Retirees

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 2006 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 2006, multiplied by 12 and by annuity divisors for the premium pension.

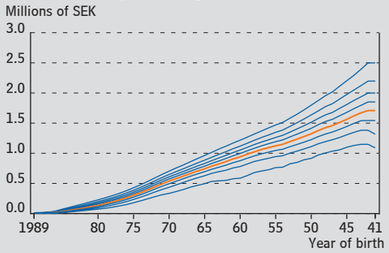
and Pension Disbursed



Pension Disbursements

Data on pension disbursements are taken from SSIA records of disbursements and refer to average amounts for all retirees receiving a pension disbursement in 2006. For total disbursements of the inkomstpension and the premium pension, see Note 2.

Pension asset, persons aged 17–65

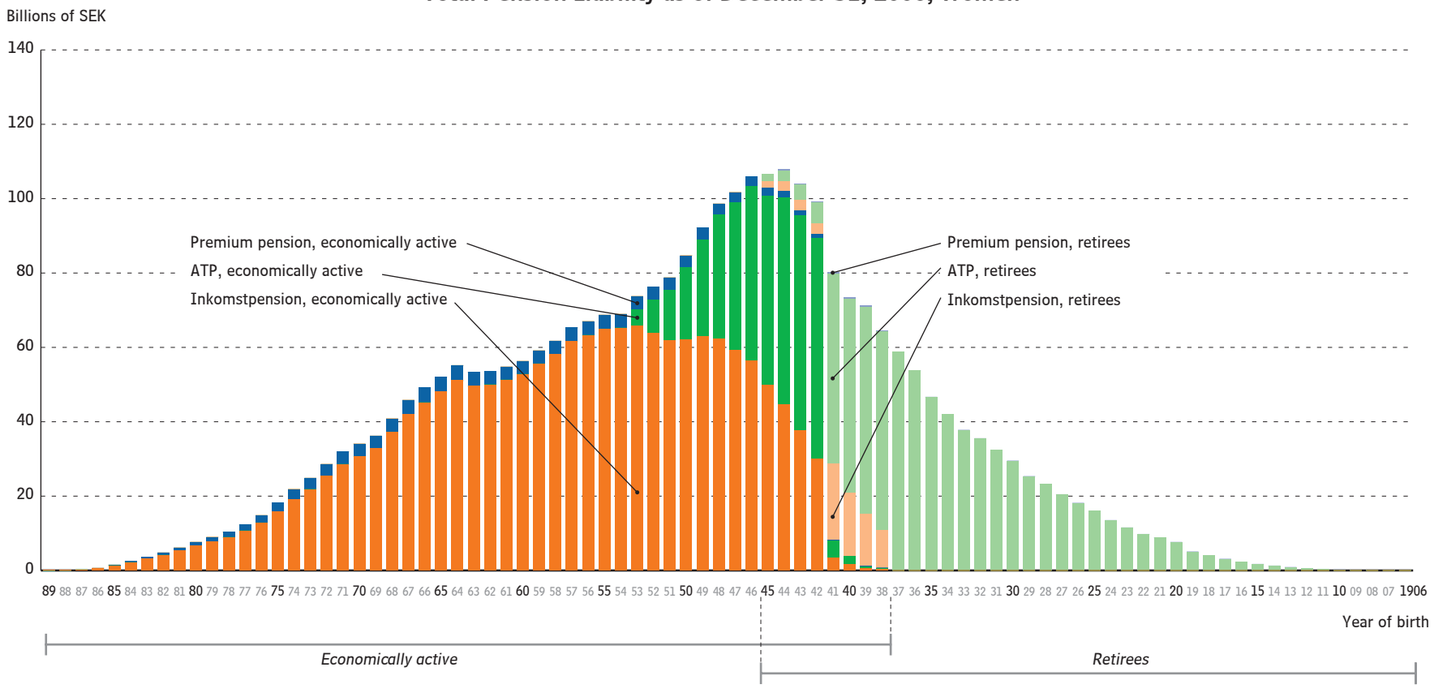


The red curve represents the median, which is the central value in the scale of values arranged from lowest to highest. The other curves indicate the values for the 20th-90th percentiles; i.e. the upper curve represents the value of the pension asset* exceeded by 10 percent of the insured, and the lower curve represents the value of the pension asset not reached by 20 percent of the insured.

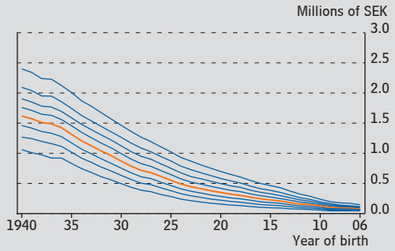
The median pension asset of a female earner of pension credit aged 43.5 years is SEK 843 000. At that age, the pension asset exceeds SEK 1 094 000 for 10 percent of women and is less than SEK 546 000 for 20 percent of them.

* The individual's pension asset is equal to the system's pension liability.

Total Pension Liability as of December 31, 2006, Women

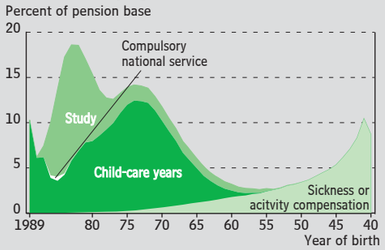


Pension asset, persons aged 66 or older



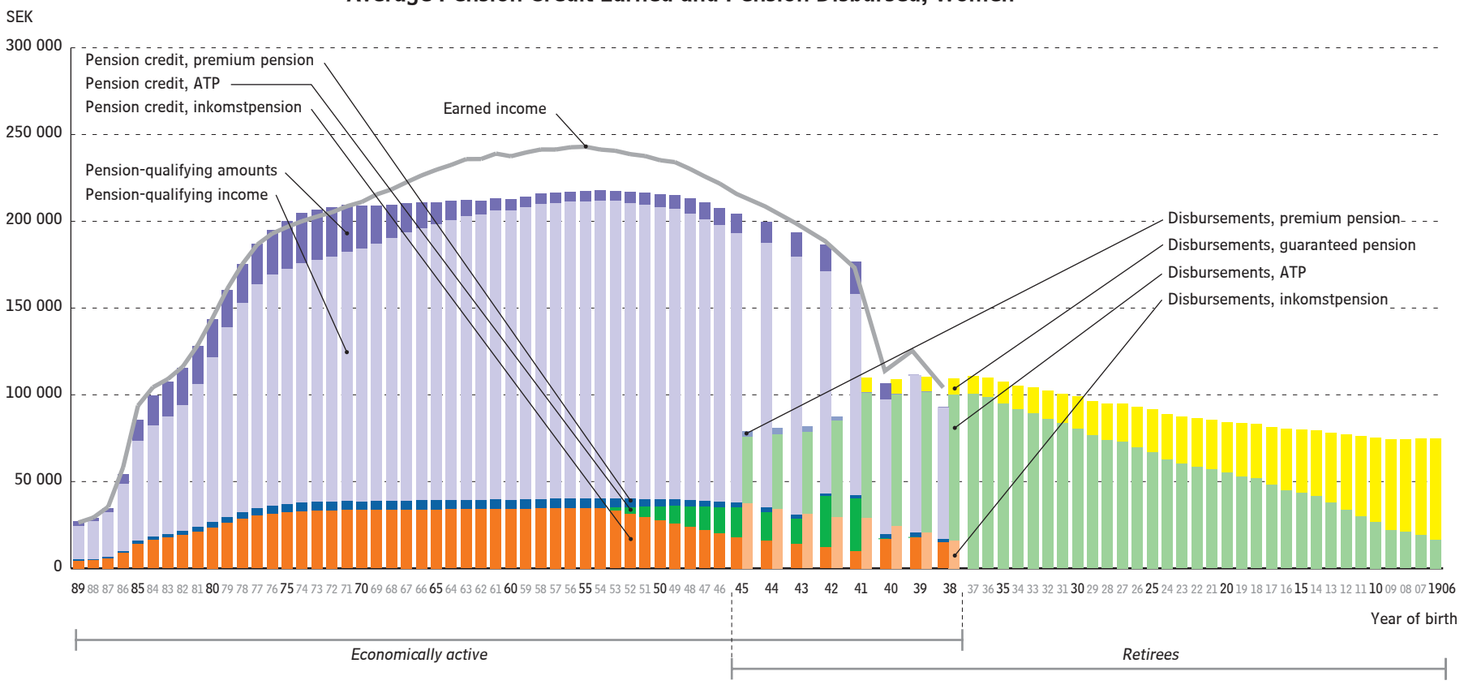
For 10 percent of retired women, the pension asset exceeds SEK 2 401 000 at age 66. The median at that age is SEK 1 618 000, and for 20 percent the pension asset is less than SEK 1 060 000. For a pensioner 75.6 years of age, the corresponding amounts decrease to SEK 1 505 000, 905 000 and 520 000.

Pension Qualifying Amounts

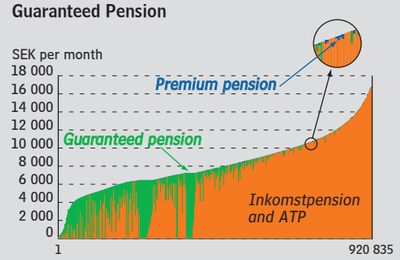


Pension credit is granted for pension-qualifying amounts in particular phases of individuals' lives, such as years with small children or of compulsory national service. In pay-in year 2005, pension-qualifying amounts constituted 7.5 percent of the pension base for women. The largest portion of this share, 3.8 percent, consisted of amounts for years with small children.

Average Pension Credit Earned and Pension Disbursed, Women



Guaranteed Pension

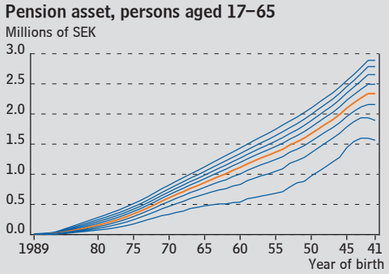


In the diagram, disbursements of the national pension in December, 2006, for female pensioners born in 1941 or earlier are presented in order of size (920 835 disbursements).

About 71 percent of female pensioners receive some guaranteed pension. In total, the guaranteed pension represents roughly 20 percent, the premium pension slightly more than 0.1 percent and the inkomstpension and the ATP approximately 80 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 asset, persons aged 17–65

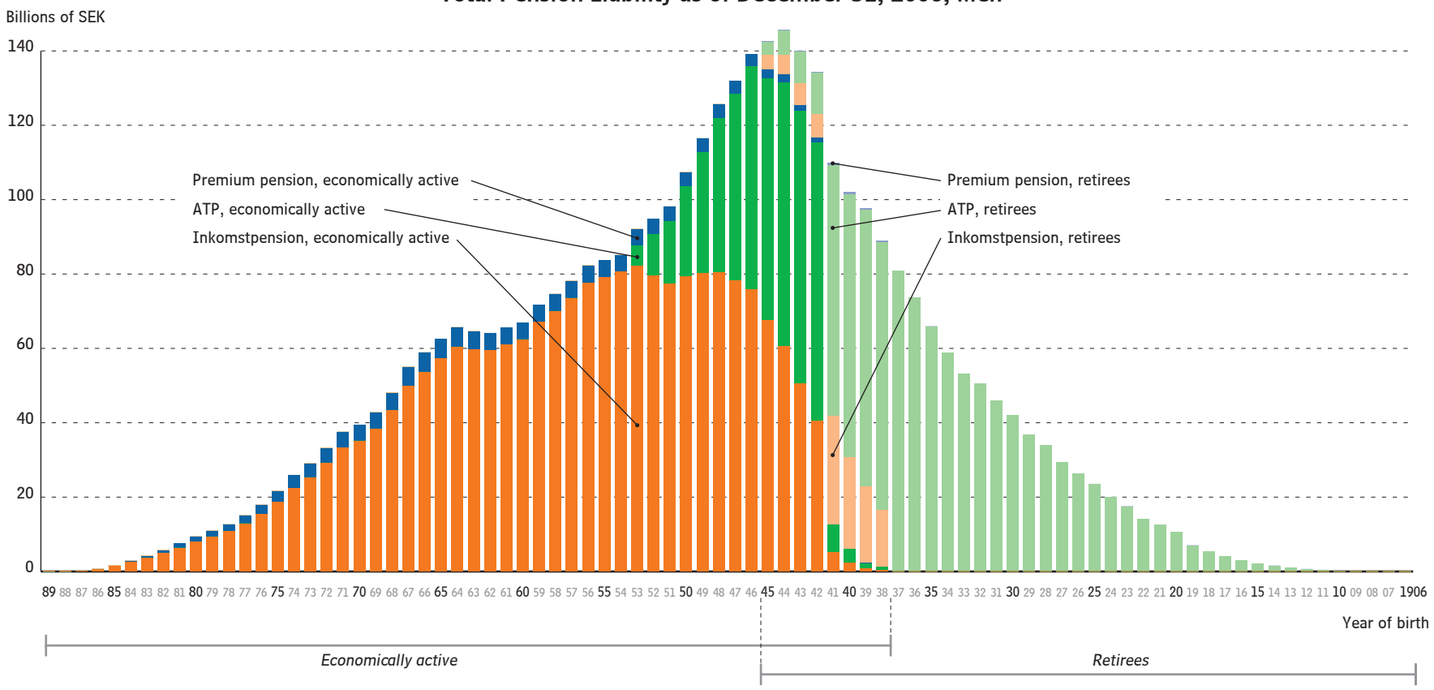


The red curve represents the median, which is the central value in the scale of values arranged from lowest to highest. The other curves indicate the values for the 20th-90th percentiles; i.e. the upper curve represents the value of the pension asset exceeded by 10 percent of the insured, and the lower curve represents the value of the pension asset not reached by 20 percent of the insured.

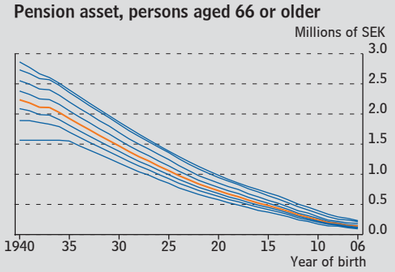
The median pension asset of a male earner of pension credit aged 43.5 years is SEK 986 000. At that age, the pension asset exceeds SEK 1 280 000 for 10 percent of the men and is less than SEK 509 000 for 20 percent of them.

* The individual's pension asset is equal to the system's pension liability.

Total Pension Liability as of December 31, 2006, Men

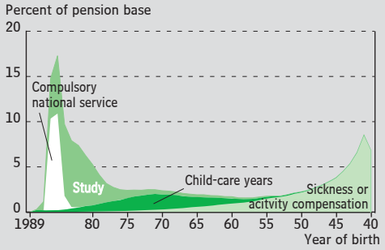


Pension asset, persons aged 66 or older



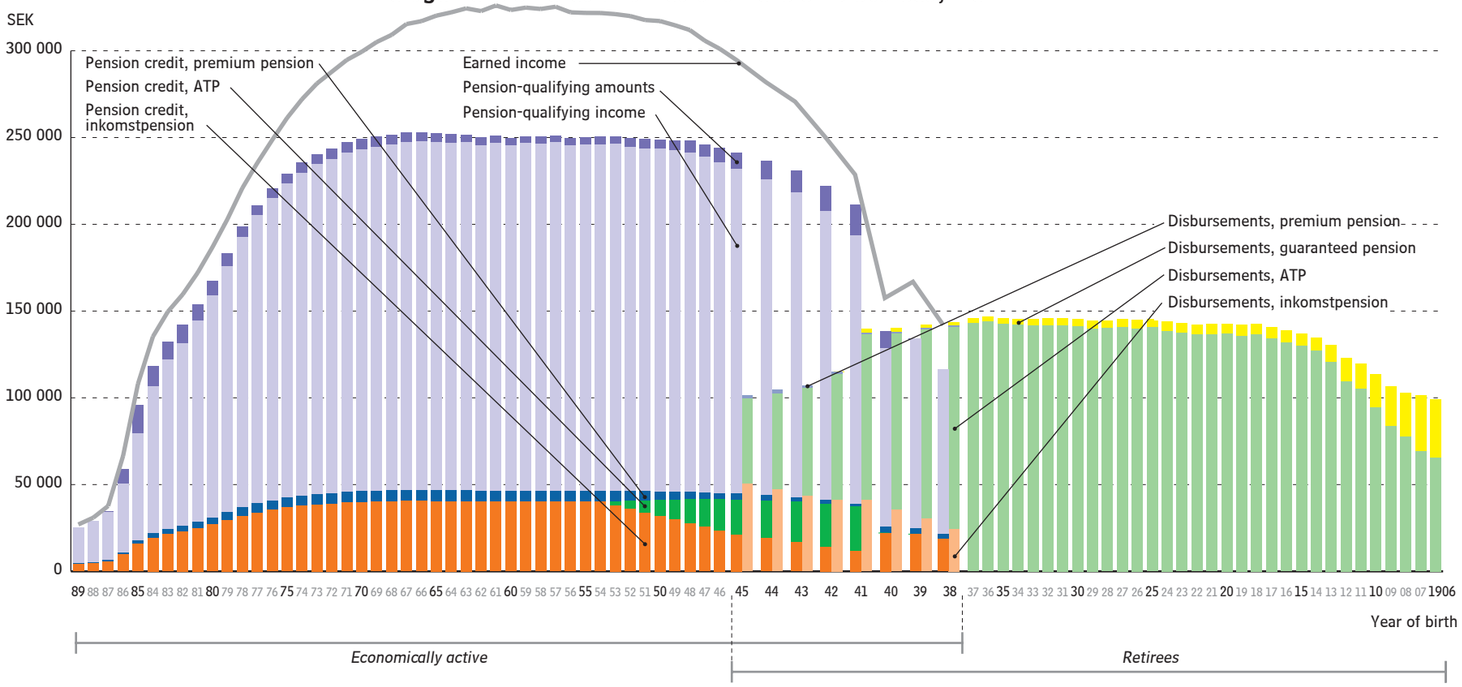
For 10 percent of retired men, the pension asset is exceeds SEK 2 863 000 at age 66. The median at that age is SEK 2 235 000, and for 20 percent the pension asset is less than SEK 1 564 000. For a pensioner 75.6 years of age, the corresponding amounts decrease to SEK 1 909 000, 1 505 000 and 1 215 000.

Pension Qualifying Amounts

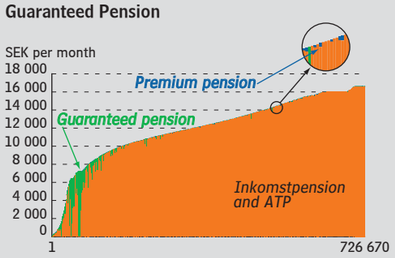


Pension credit is granted for pension-qualifying amounts in particular phases of individuals' lives, such years with small children or of compulsory national service. In pay-in year 2005, pension-qualifying amounts constituted 3.0 percent of the pension base for men. The largest portion of this share, 1.4 percent, consisted of amounts for sickness or activity compensation.

Average Pension Credit Earned and Pension Disbursed, Men



Guaranteed Pension



In the diagram, disbursements of the national pension in December, 2006, for male pensioners born in 1941 or earlier are presented in order of size (726 670 disbursements).

About 7 percent of male pensioners receive some guaranteed pension. In total, the guaranteed pension represented roughly 3 percent, the premium pension slightly more than 0.1 percent and the inkomstpension and the ATP approximately 97 percent of pension disbursements to male retirees.

Costs of the Old-Age Pension System

The income statements of the inkomstpension and the premium pension include only a portion of the total costs of the old-age pension system. The costs reported decrease the buffer fund, pension balances and premium pension accounts and thus reduce both the assets and liabilities of these systems.[11]

[11] The difference in amount between the deduction for costs and the costs shown is explained in Notes 11 and 21 to the income statement.

The income statement of the inkomstpension shows the costs of insurance administration, as well as the costs that are accounted for as such in the annual reports of the National Pension Funds, that is, the capital management costs that are reported "gross". Not shown, however, are the costs of the National Pension Funds that are reported "net," that is, as negative revenue or as a reduced return on funds. Costs reported net are not charged to pension savers as a deduction for costs, but are just reflected in the size of the National Pension Funds. Since only the asset side of the balance sheet is charged with these costs, the accumulated surplus is somewhat smaller, and the balance ratio is negatively affected. As costs reported net are very limited in relation to the pension liability, the effect on the balance ratio is small.

The income statement of the premium pension shows only the costs of the Premium Pension Authority (PPM). The charges of premium pension funds are not included, as they have reduced the reported return on these funds.

In this section, gross and net reported costs are compiled in a presentation of the total costs of the old-age pension system.

Reporting Total Costs

For the inkomstpension, costs reported in the income statement for 2006 totalled SEK 2 077 million. For the premium pension, the costs reported were SEK 329 million. Costs of insurance administration for conventional insurance accounted for an additional SEK 6 million (see Note 17). The total costs of insurance administration for the premium pension were thus SEK 335 million. The corresponding amount is found in the adjoining table as the sum of the total costs of insurance administration and capital management costs reported gross.

Also shown in the table are the net reported costs of capital management. The total costs of pension system administration and capital management were slightly less than SEK 5.0 billion, of which SEK 2.4 billion are reported in the income statement of the pension system.

The item of non-result-based charges for the inkomstpension is reported as negative revenue in Note 3 to the income statement (see the item of commission costs). The item of result-based charges and brokerage etc. for the inkomstpension consists of amounts that have reduced the return reported in the same note. All net reported capital management costs of the premium pension have reduced the return of the system (see Note 16). As for the premium pension, the item of non-result-based charges refers to the costs charged by the funds before rebates. At present, over half of the charge to pension savers is returned as a rebate.

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

	Inkomst-pension	Premium pension	Total
Collection, calculation of pension-qualifying income	403	75	478
Pension administration	794	260	1 054
Total costs of insurance administration	1 197	335	1 532
Capital management costs reported gross	880	0	880
Capital management costs reported net	1 113	1 429	2 542
of which:			
Non-result-based charges	526	1 982	2 508
Result-based charges	146	–	146
Rebates. fund fees	–	–1 090	–1 090
Brokerage etc.*	441	537**	978
Total costs of capital management	1 993	1 429	3 422
Total costs	3 190	1 764	4 954

* Brokerage refers primarily to transaction costs on the stock market. Transaction costs on the bond and foreign exchange markets arise as a result of the difference between bidding and asking prices. These costs are not reported in this table.

** The costs included here are only those of the funds that report the so-called total cost share (TCS) to the PPM. These funds account for 98.8 percent of the capital in the premium pension system. The amounts also include costs of interest and coupon (dividend) taxes in the funds.

To provide a further perspective on costs, items of cost are reported in relation to the number of persons insured – i.e. economically active and pensioners – and to the pension liability at year-end, respectively, in the upper table below. The lower table shows capital management costs as a percentage of the average capital managed during the year.

Costs per Insured in SEK and in Percent of Pension Liability

	SEK per insured [1]			Percent of pension liability [2]		
	Inkomst-pension	Premium pension	Total	Inkomst-pension	Premium pension	Total
Collection, calculation of pension-qualifying income	54	13	64	0.01	0.03	0.01
Pension administration	107	46	142	0.01	0.09	0.01
Total costs of insurance administration	161	59	206	0.02	0.12	0.02
Capital management costs reported gross	118	0	118	0.01	0.00	0.01
Capital management costs reported net	150	251	342	0.02	0.53	0.04
of which:						
Non-result-based charges	71	348	337	0.01	0.73	0.05
Result-based charges	20	–	20	0.00	–	0.00
Rebates, fund fees	–	–191	–147	–	–0.40	–0.02
Brokerage etc.	59	94	132	0.01	0.20	0.01
Total costs of capital management	268	251	460	0.03	0.53	0.05
Total costs	429	310	666	0.05	0.65	0.07

[1] Number insured: 7 437 041 for the inkomstpension and 5 689 608 for the premium pension.
[2] Pension liability: SEK 6 703 010 million for the inkomstpension and SEK 269 447 million for the premium pension.

Capital Management Costs in Percent of Average Capital Managed

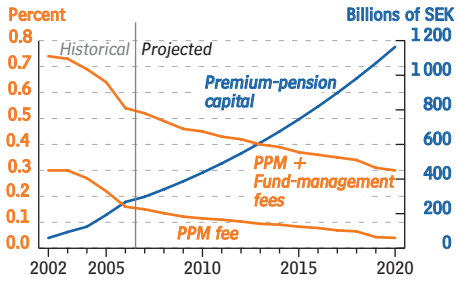
	Inkomst-pension	Premium pension	Total
Capital management costs reported gross	0.11	0.00	0.09
Capital management costs reported net	0.13	0.64	0.24
of which:			
Non-result-based charges after rebates[1]	0.06	0.40	1.14
Result-based charges	0.02	–	0.01
Brokerage, etc.	0.05	0.24	0.09
Total costs of capital management	0.24	0.64	0.33

[1] Refers to rebates of fund fees in the premium pension system.

For the inkomstpension system, the deduction from pension balances for costs was 0.0312 percent in 2006. The deduction for costs is made only until pension disbursement begins. As previously noted, capital management costs reported net, 0.13 percent of capital managed (0.02 percent of the pension liability), are not charged to pension savers as a deduction for costs.

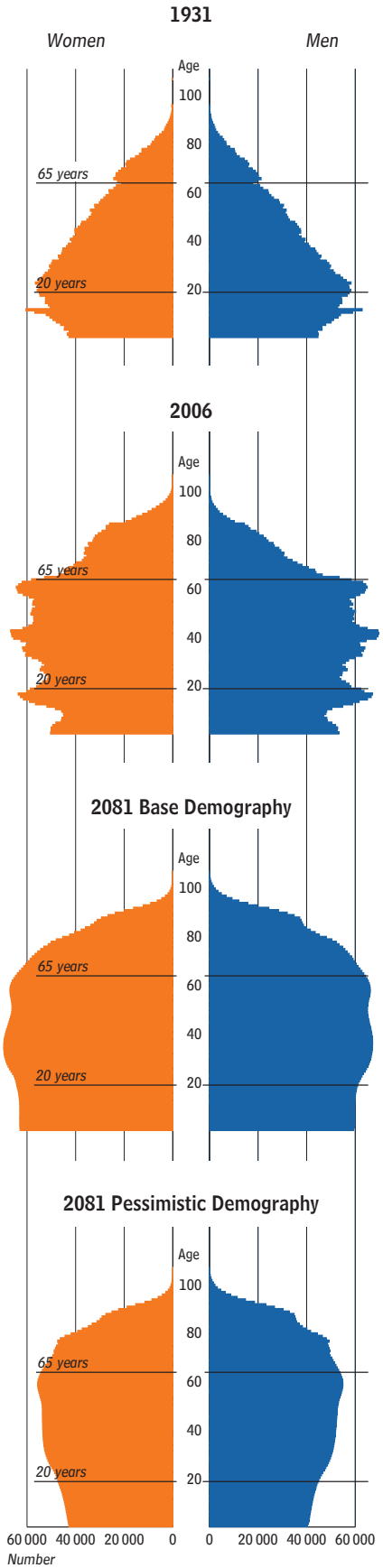
The corresponding deduction for the administrative costs of the premium pension was 0.16 percent, based on the capital managed in the premium pension system as of May 1, 2006. Here the deduction continues to be made even after pension disbursement begins. Moreover, the costs of fund managers have reduced the value of fund shares. The average cost deduction by fund managers after rebates was 0.40 percent in 2006. In addition, there were transaction costs of approximately 0.24 percent in the form of brokerage etc. The annual percentage cost deduction will diminish in the years ahead. As funded capital grows, it is estimated that the deduction will drop from 0.16 to 0.04 percent, and the rebates returned from fund managers and credited to pension savers are expected to become substantially larger.

Costs of the Premium Pension



Three Scenarios for the Future of the Pension System

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



To show how different developments can affect the financial position of the pension system and the size of pensions, 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. In the base scenario, which starts with the latest population forecast by Statistics Sweden, it is assumed that incomes will grow by 1.8 percent annually and that the real return on buffer-fund assets will be 3.25 percent. In the other two scenarios, assumptions have been made about more and less positive paths of development for the finances of the inkomstpension system.

A high rate of return on the buffer fund can soften the impact of an otherwise negative tendency on the pension system. In the pessimistic scenario, therefore, the future development of the system has been calculated on various assumptions about the return on the buffer fund.

The three projections extend 75 years into the future. The projected population structure in 75 years is expected to be different from the structure in Sweden today, as is illustrated by the population pyramids in the margin. In the base scenario and the optimistic scenario, the demographic assumptions are the same. For comparison, the population pyramid 75 years ago, that is, in 1931, is also shown. At that time the remaining life expectancy of a 65-year-old was roughly 13 years; today it is about 19 years, and in 2081 the remaining life expectancy at age 65 is expected to be 22 years – the same with both base and pessimistic demography. The share of the population aged 65 or above was 9 percent 75 years ago. Today it is 17 percent, and in 2081 it will be an estimated 23 percent in the base-demography scenario and 30 percent in the scenario with pessimistic demography.

The results of the projections are reported as calculations of net contribution, size of buffer fund, balance ratio and average pension level for new pensioners. In summary, net contributions will be negative in all three scenarios beginning around 2010 and for quite a few years thereafter. Pension disbursements are thus forecast to exceed contribution revenue, but only in the pessimistic scenario does this trend ultimately exhaust the buffer fund. The reason why the fund is exhausted is that both the working-age population and the return on the buffer fund are low in this scenario. Only in the pessimistic scenario is balancing activated; in the projections published in the Annual Report 2005 it was also activated temporarily in the base scenario. One reason for the change in projection is the high return on the buffer fund in 2006. Moreover, the other determinants in the pension system are more positive in this year's projection than in those of previous years, primarily because of a more favourable population forecast.

This chapter concludes with a discussion on the calculation of pension levels and compensation rates. This year, the pension levels in the projections have been supplemented by the compensation rates indicated in each individual's orange envelope. These compensation rates have been calculated by dividing the individual's pension forecast at age 65 by her/his own income.

Net Contribution

The amount of pension disbursements is a function of the rules of the system and their interplay with demographic and economic developments. Since birth cohorts vary in size, and to some extent have worked to different degrees, the contribution revenue and pension disbursements of the system vary over time. In certain periods, contributions exceed disbursements; at other times, the opposite is true. Surpluses and deficits are managed through the buffer fund of the system.

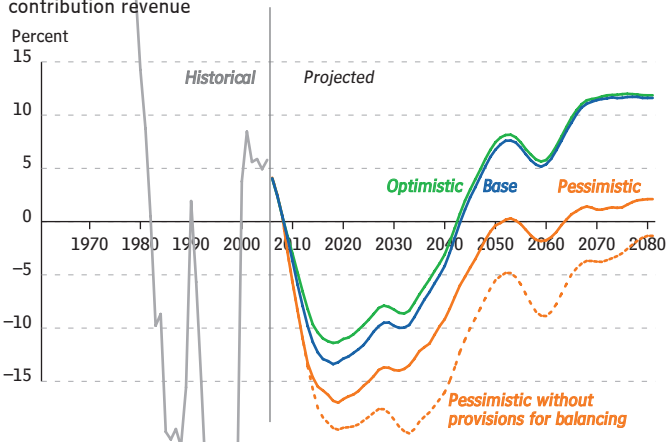
To permit comparison of net contributions – that is, contribution revenue received minus pensions disbursed – in the three scenarios, the net contribution in each scenario has been divided by the contribution revenue in that scenario. The volume effect of different growth rates on the monetary value of the net contribution is thus eliminated.

When the ATP system was introduced in 1960, contributions exceeded pension disbursements, which were initially limited; in proportion to contributions, there was a large surplus. From 1980 on, net contributions have varied considerably. The principal explanation for the variations has been changes in applicable provisions regarding the contribution percentage, which have affected revenue, and the calculation of the base amount, which have affected expenditure. To a lesser degree, the variations in net contribution have been due to changes in the number of pensioners and the number gainfully employed.

The net contribution turns negative around 2009, when the large birth cohorts of the 1940's leave the labour force and begin drawing pensions. Around 2020 the weakening trend begins to slacken, and the net contribution deficit gradually diminishes. After 2044, contribution revenue exceeds expenditure in the base and optimistic scenarios. In the pessimistic scenario, on the other hand, the net contribution remains negative for about 20 more years. Through balancing, the contribution deficit is limited to a range between 0 and 15 percent of contribution revenue.

Thus, balancing is activated only in the pessimistic scenario. The reduction in pension levels due to balancing in this case is described in the section "Development of Pension Levels for Different Birth Cohorts".

Net Contribution
Contribution revenue less pension disbursements as a percentage of contribution revenue



Base Scenario

The demographic tendency in the base scenario follows the 2006 population forecast by Statistics Sweden. There it is assumed that the birth rate will rise from 1.77 children per woman at present to 1.85 in 2010 and remain at that level thereafter. Life expectancy for individuals who have reached 65 is assumed to increase by an average of 36 days per year early in the period; subsequently, the rate of increase slackens to about 15 days per year in 2050. After 2050 the assumptions on mortality are unchanged. Net immigration, which has averaged 24 400 per year for the last 20 years, was 52 000 in 2006 because of the temporary law on asylum. Net immigration is anticipated to average 26 000 persons in the initial years until 2015 and some 23 000 per year from then on. The proportion of persons aged 16–64 with an annual income over one (1) income-related base amount is assumed to remain at the current level of about 84 percent, equivalent to an employment rate of 77 percent, as defined by the Labour Force Surveys (AKU). Real growth in average income is assumed to be 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 an individual who has just retired.

Optimistic Scenario

The demographic assumptions are the same as in the base scenario; the two scenarios differ only in respect to economic factors. In the optimistic scenario, the proportion of persons aged 16–64 with an annual income exceeding one income-related base amount is 86 percent; real annual growth in average income is 2.0 percent after 2010; and the real return on the buffer fund is 5.5 percent. The return in the premium pension system, after

The Buffer Fund

The size of the buffer fund can be expressed in terms of fund strength, that is, fund capital divided by pension disbursements for the year. Fund strength shows how many years of pension disbursements can be financed by the fund without additional contributions or return on assets. The varied development of the buffer fund in the three scenarios is due to differences both in net contributions and in the assumed return on the buffer fund.

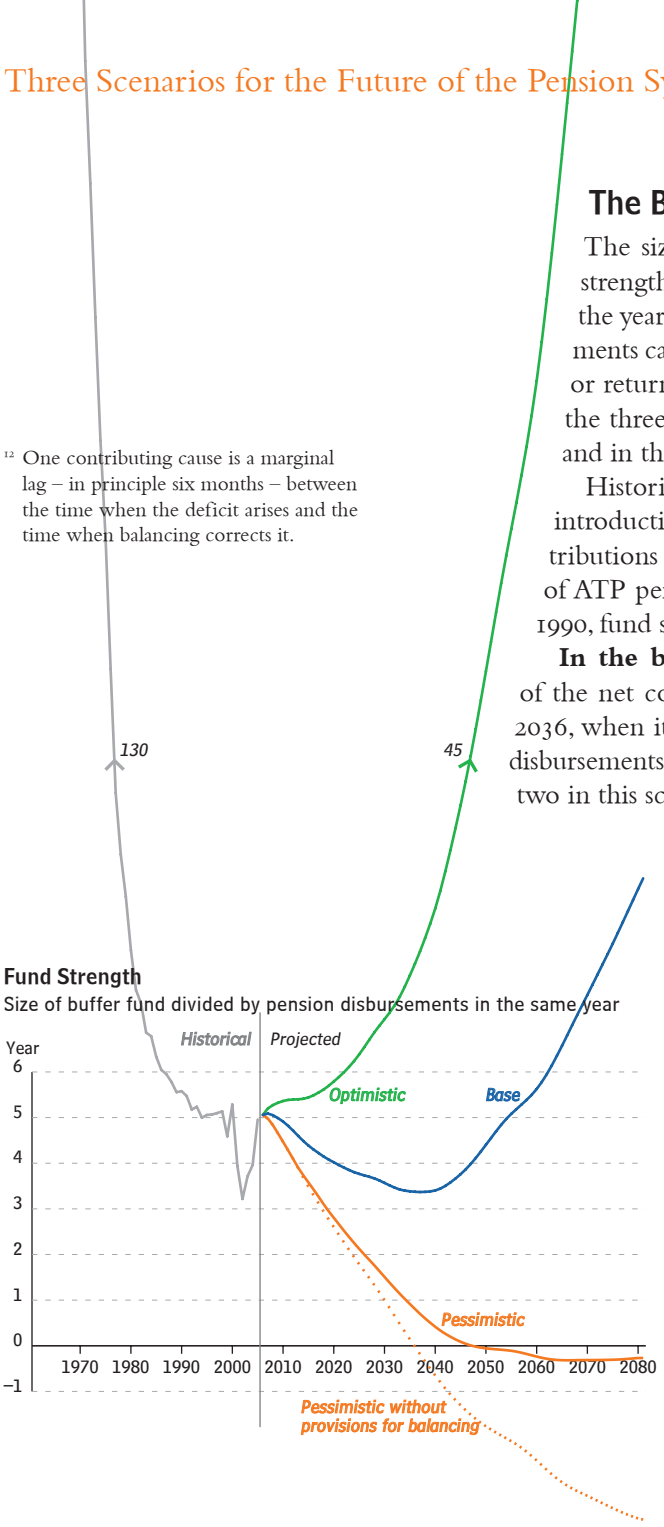
Historically, fund strength has been high, the reason being that the introduction of the ATP system in 1960 brought an inflow of contributions while pension disbursements were limited. As the number of ATP pensioners has increased, fund strength has decreased. Since 1990, fund strength has averaged slightly less than five years.

In the base scenario, fund strength gradually decreases because of the net contribution deficit. Fund strength reaches a low point in 2036, when it is equivalent to barely more than three years of pension disbursements. In previous projections, fund strength dropped to just over two in this scenario.

In the optimistic scenario, there is a substantial increase in fund strength. The explanation is the limited contribution deficit and the high rate of return on the fund in relation to the growth in average income. In 2050, fund strength is equivalent to nearly 15 years of pension disbursements.

In the pessimistic scenario, the buffer fund is exhausted by 2036 and is slightly negative thereafter. This development occurs even though balancing is activated as early as 2013. The principal reason[12] is that in the calculation of turnover duration, the population is implicitly assumed to be constant. With a declining trend in the working-age population, this assumption means that turnover duration is somewhat overestimated. Balancing was deliberately designed not to eliminate the risk of exhausting the buffer fund. This risk has been addressed by authorizing the funds to borrow money. Any borrowing is to take place via the National Debt Office.

[12] One contributing cause is a marginal lag – in principle six months – between the time when the deficit arises and the time when balancing corrects it.



costs of administration, is also assumed to be 5.5 percent in real terms. By historical standards, neither the assumed growth rate nor the assumed rate of return is particularly high.

Pessimistic Scenario

The assumptions in the pessimistic scenario are for a lower birth rate and lower net immigration than in the base alternative. The birth rate is assumed to be 1.65 children per woman, and net immigration is assumed to average 17 000 per year until 2015 and 15 000 per year thereafter. The birth rate and migration are in accordance with the low assumptions in the 2006 population forecast by Statistics Sweden. Life expectancy develops as in the other two scenarios. The assumption for labour force participation is the same as in the base scenario, but here the real long-term rate of growth in average income 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 buffer fund provides no contribution, in principle, to the long-term financing of pensions. The buffer fund is then a demographically determined repository of pension capital with a neutral impact on the financing of the system. On the assumptions in the pessimistic scenario, contribution revenue increases slowly in relation to the desired indexation of average income. The pessimistic scenario describes the risks managed through balancing and how pensions are affected by a prolonged negative trend.

When the assumed population decrease comes to a halt, the buffer fund is guided toward fund strength of at least zero. During the years when the fund is negative, interest is paid on the loans taken to finance the deficit. In the diagram it has been assumed that the rate of interest on these loans, taken via the National Debt Office, is the same as the assumed rate of return in the scenario, i.e. 1 percent.

With balancing initiated so early, the annual reduction in pension levels relative to growth in average income is very modest at first but increases somewhat over time. For younger birth cohorts, the balancing effect is about 3 percentage points – see the section "Development of Pension Levels for Different Birth Cohorts".

Financial Position of the Inkomstpension System

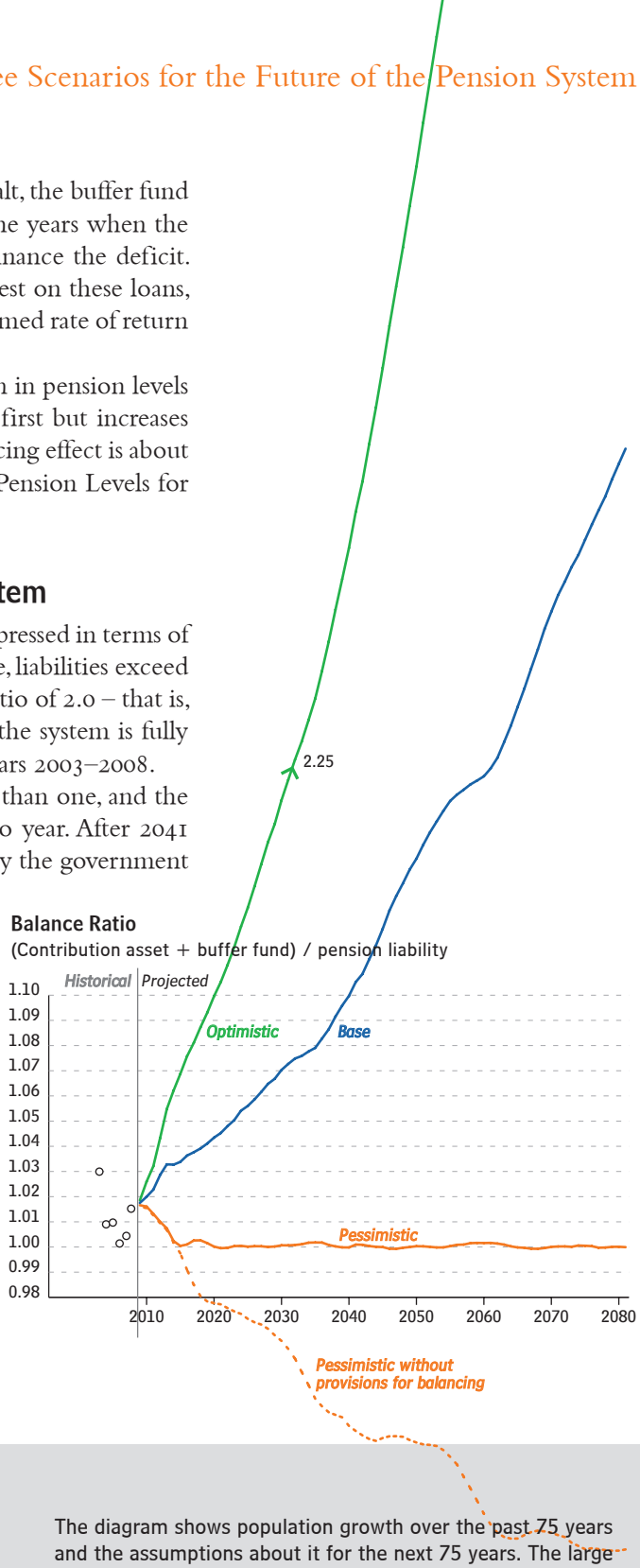
The financial position of the inkomstpension system is expressed in terms of the balance ratio. When the balance ratio drops below one, liabilities exceed assets, and balancing is activated. In principle, a balance ratio of 2.0 – that is, when assets are twice as great as liabilities – means that the system is fully funded. The balance ratio has been established for the years 2003–2008.

In the **base scenario**, the balance ratio is never less than one, and the financial position of the system strengthens from year to year. After 2041 the balance ratio exceeds 1.1, a level which as proposed by the government report Utdelning av överskott i inkomstpensionssystemet (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 adopted by the Swedish Parliament.

In the **optimistic scenario**, the financial position of the system strengthens for virtually the entire period. Beginning in 2019 the balance ratio exceeds 1.1, and by 2050 system assets exceed the pension liability by more than 40 percent.

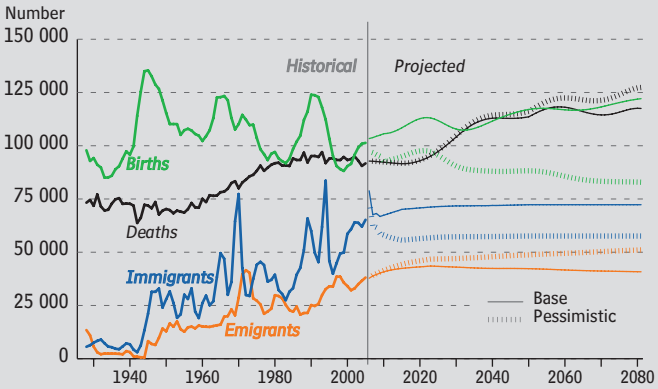
In the **pessimistic scenario**, the balance ratio falls below 1.0000 in 2013; consequently, balancing is activated. With balancing, the liability of the system accrues interest at the same rate as the growth in system assets. As a result, the balance ratio stabilizes around 1.0.

Balance Ratio
(Contribution asset + buffer fund) / pension liability



Comments on the Assumptions in the Scenarios

Births, Deaths, Immigration and Emigration – 1928–2005 and Assumptions Until 2081



The diagram shows population growth over the past 75 years and the assumptions about it for the next 75 years. The large birth cohorts of the 1940's, 1960's and 1990's stand out. The number of deaths increases each year, not because mortality is on the rise, but because the population is growing. The peak years for immigration are the 1960's and 1970's, when there was substantial immigration of labour, primarily from Finland. There was another peak in the early 1990's, with numerous refugees from ex-Yugoslavia. The demographic conditions are the same in the base and optimistic scenarios.

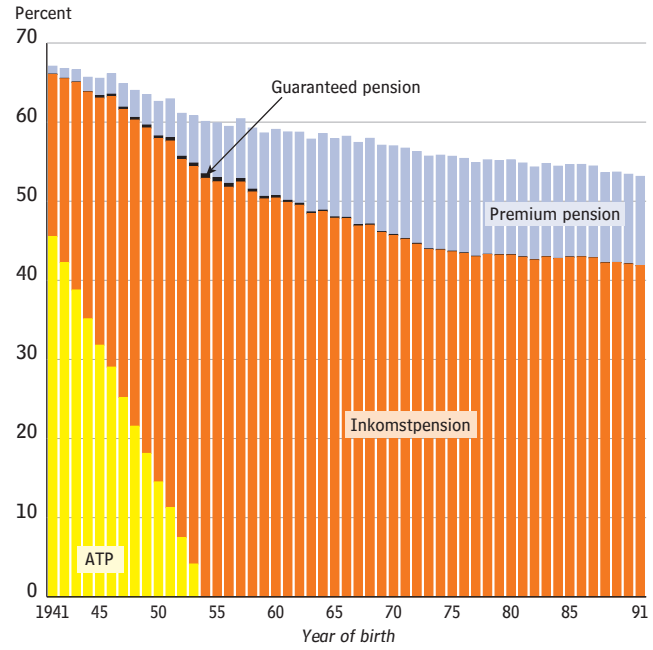
Average Income and Pension – Base Scenario

Amounts in SEK

Year of birth	Pension at age 65	Average income	Pension level, %
1940	10 800	16 400*	66
1965	14 600	25 200	58
1990	21 000	39 300	53

* An average monthly income for a full-time employee is about SEK 24 300. The reason why the average income is lower than this figure here 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



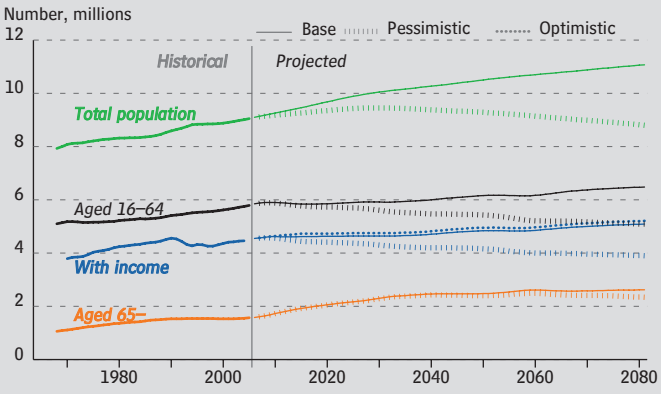
Development of Pension Levels for Different Birth Cohorts

The pension level is defined here as the average national pension 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 average 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 the average income for ages 16–64 is shown in the adjacent 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 1940 to 53 percent for birth cohort 1990. Of this decrease, 9.6 percentage points are due to the anticipated increase in life expectancy. One explanation for the remainder of the decrease 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 was especially generous to persons who worked only 30 years. If working life is prolonged to neutralize the effect of the increase in life expectancy on pension levels, the pension level stabilizes at just above 60 percent of the average income. A longer working life also increases pensions through inheritance gains and the pension credit earned during these additional years. The effect of longer life expectancy on the average pension level and required retirement age, to keep the pension level stable for different birth cohorts, is shown in the table on page 31.

Population Size, etc.



The scenarios do not differ significantly in respect to the number of persons over 65, as the assumptions regarding mortality are the same in all scenarios. The number of persons with income refers to those with earnings above one income-related base amount. The historical data are estimates.

The assumptions regarding the proportion with income are the same in the base and pessimistic scenarios and higher in the optimistic scenario.

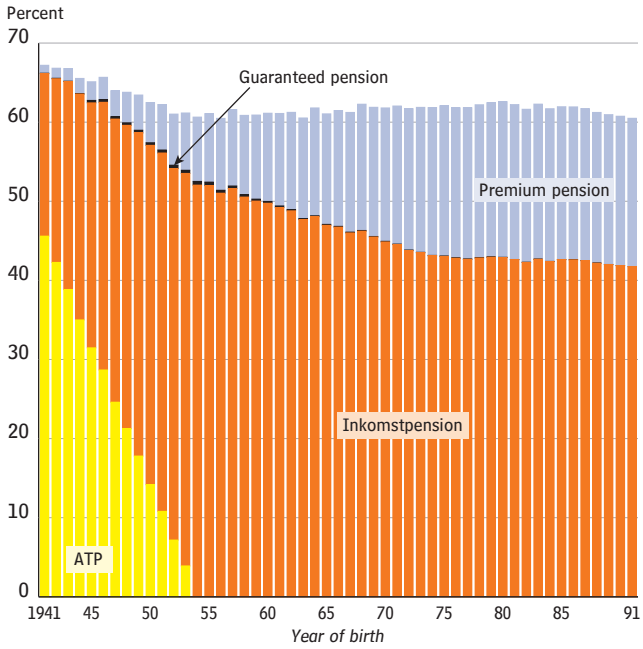
In the base scenario, the return of 3.25 percent for the premium pension system exceeds the assumed rate of growth in average income, which is 1.8 percent. As a result, the premium pension accounts for a larger share of the national pension than of contributions.[13] For the youngest birth cohorts, the premium pension is more than 11 percent of the average income, and the inkomstpension is about 42 percent. In the base scenario, the guaranteed pension for persons who have worked at least 30 years is only marginal from the very beginning. Since the guaranteed pension is assumed to remain constant in real terms, its significance decreases each year with the growth in incomes. The realism of this assumption is open to question, however. The relationship between the return of the premium pension system and growth in average income affects both the pension level and the relative size of the premium pension. The greater the positive difference between return and growth, the higher the pension level and the larger the share of the premium pension.

[13] Another reason why the premium pension is relatively larger 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 System Works" and Appendix A.

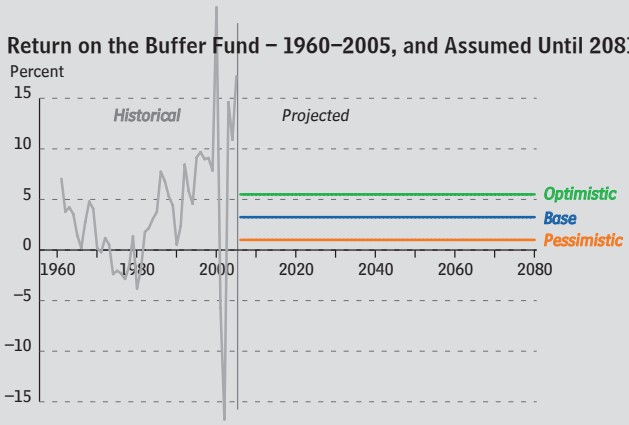
In the other two scenarios, the growth in average income is less and more, respectively, than in the base scenario. As long as balancing is not activated, the inkomstpension accrues interest (is indexed) by the growth in average income and thus increases as the same rate as average income. As the relationship between pensions and average income is then unaffected by this growth, 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.

In the **optimistic scenario,** the return on the premium pension is 3.5 percentage points more than the growth in average income, or 5.5 percent compared to 2 percent. The relatively large premium pension resulting from the high return more than compensates for the effect of longer life expectancy. If the retirement age were to increase at the same rate as life expectancy, the pension level would remain constant at about 70 percent. In both of the alternative projections made for each insured in the orange envelope, the difference between growth in income and the return on the premium pension is also 3.5 percentage points.

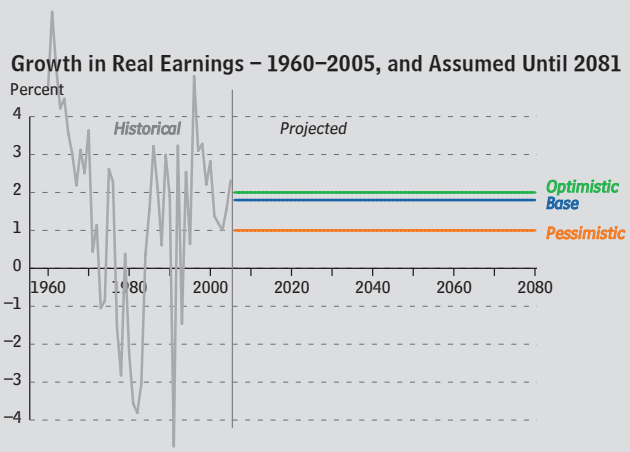
Average Pension at Age 65 as a Percentage of Average Income, Optimistic Scenario



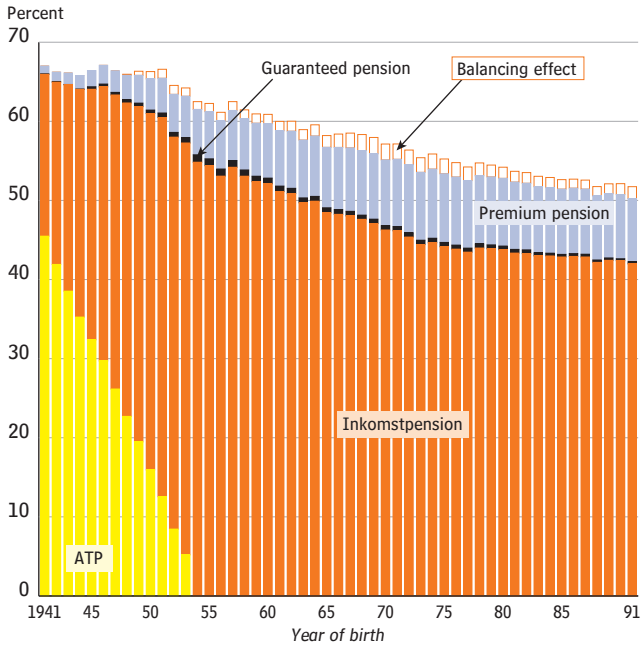
Return on the Buffer Fund – 1960–2005, and Assumed Until 2081



Growth in Real Earnings – 1960–2005, and Assumed Until 2081



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



In the **pessimistic scenario**, growth in average income is 0.8 percentage point less than in the base scenario. The rate of return is also lower, 1 percent instead of 3.25 percent. The lower rate of return means that the premium pension will be less both in monetary terms and as a share of the total pension. With income-related pensions relatively lower than in the base scenario, the guaranteed pension becomes more important.

The diagram also shows how balancing affects pensions. Balancing is activated in 2013. For persons born in 1954 – the first birth cohort not to receive any portion of their pensions as ATP – the pension level at age 65 is 0.9 percentage point lower in proportion to average income as a result of balancing. However, the guaranteed pension will raise the total level of pensions by about the same on average. For birth cohort 1990, balancing has lowered the pension level by 1.4 percentage points, whereas the guaranteed pension will raise the pension level by 0.3 percentage point relative to average income.

Life Expectancy Effect and Retirement Age Required

In the present calculation of the so-called life-expectancy effect, the average life span for persons born in 1930, which was 65 years at the time of the fundamental decision on pension reform, is used for comparison. It is assumed by Statistics Sweden that the average life span will increase rather substantially in the years ahead. As a consequence, the annuity divisor at age 65 will rise from 14.8 for persons born in 1930[14] to 18.3 for those born in 1990. The larger divisor will reduce monthly pensions by 19 percent for birth cohort 1990 relative to the demographic conditions prevailing when the principles of the pension reform were established, assuming that people born in 1990 begin withdrawing their pensions at age 65. To compensate for the negative effect of the longer life expectancy on pension levels, birth cohort 1990 must work 38 months longer, in other words, retire at age 68 years and two months. Even with this higher retirement age, persons born in 1990 are forecast to live longer as pensioners than those born in 1930

[14] No annuity divisors have been confirmed for birth cohort 1930, whose initial pensions were calculated entirely according to the provisions of the ATP system.

Other Assumptions in the Calculations

The assumptions for the scenarios apply from 2007 on, except for the assumed return on the fund, which applies from January 1, 2006.

The guaranteed pension is price-indexed. Consequently, the lowest pensions will gradually shrink in relation to average income, and the tax component of the pension contribution for individuals with modest incomes will also decrease. The effect over a period of 75 years is very powerful. If annual income grows by 1.8 percent per year, it will be almost four times as great in 2080 as in 2005. Thus, the guaranteed pension will become totally marginal long before the end of the calculation period.

With the pension liability indexed to growth in average income, it may appear unnecessary to vary the rate of growth in income in the scenarios, for the inkomstpension system is designed to adjust the value of pensions according to the development of average income. However, since the ATP liability to the economically active is indexed by the rate of increase in prices, the inkomstpension system is initially unstable in relation to growth in average income. Moreover, the relationship between the increase in average income and the return on the buffer fund impacts the financial development of the inkomstpension. The relationship between the return and the growth in average income also affects pension levels via the premium pension. The three scenarios differ regarding the extent to which the buffer fund contributes to the financing of the inkomstpension. In the base scenario, the return on the buffer fund exceeds growth in average income by 1.45 percentage points (3.25–1.8). In the optimistic scenario, the return exceeds growth in average income by 3.5 percentage points. In the pessimistic scenario, the return is equal to growth in average income.

– 19 years and 5 months as against 17 years and 5 months. Compared to the calculations in the Annual Report for 2005, the required retirement age has increased by one to two months.

One of the first birth cohorts with a retirement age of 65 was born in 1911. When this cohort reached age 65 in 1976, their remaining life expectancy as retirees was approximately 16 years.

Life Expectancy and Retirement Age

Cohort born in	... reaches 65 in	Forecast annuity divisor	Life-expectancy effect at age 65	Retirement age required	Remaining life-expectancy at retirement*
1930	*1995*	*14.84*	*0 %*	*65 yrs*	*17 yrs 5 months*
1938	*2003*	*15.56*	*–5 %*	*65 yrs 8 months*	*17 yrs 10 months*
1940	2005	15.69	–5 %	65 yrs 9 months	18 yrs
1945	2010	16.17	–8 %	66 yrs 2 months	18 yrs 3 months
1950	2015	16.54	–10 %	66 yrs 6 months	18 yrs 6 months
1955	2020	16.88	–12 %	66 yrs 10 months	18 yrs 8 months
1960	2025	17.15	–13 %	67 yrs 1 month	18 yrs 11 months
1965	2030	17.39	–15 %	67 yrs 4 months	19 yrs
1970	2035	17.63	–16 %	67 yrs 7 months	19 yrs 2 months
1975	2040	17.86	–17 %	67 yrs 9 months	19 yrs 3 months
1980	2045	18.02	–18 %	67 yrs 11 months	19 yrs 3 months
1985	2050	18.17	–18 %	68 yrs 1 month	19 yrs 3 months
1990	2055	18.32	–19 %	68 yrs 2 months	19 yrs 5 months

* From the retirement age required.

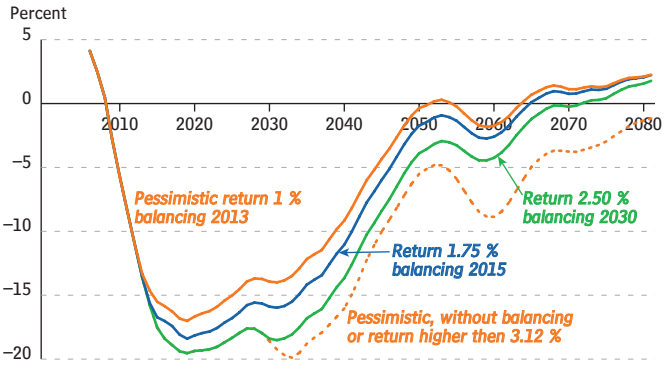
Balancing, Rate of Return and Guaranteed Pension

A high return on the buffer fund can compensate for a negative demographic and/or economic trend. In the pessimistic scenario, balancing is not activated if the return on the buffer fund is at least 3.12 percent. If growth in average income is 1 percent, this return will compensate for the strain on the system posed by nativity of 1.65 children per woman and the rather substantial increase in life expectancy assumed in all three scenarios. A higher return means that the system can afford larger negative net contributions.

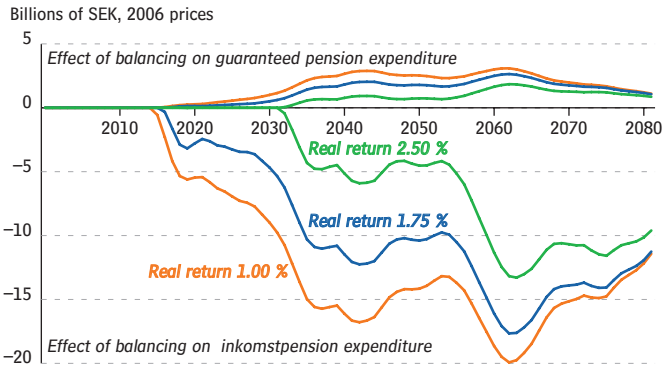
To indicate the severity of the strain arising in the pessimistic scenario, the assumed rate of return is varied in that scenario, with real annual rates of return set at 1.75 or 2.5 percent instead of 1 percent. A return of 2.5 percent means that the contribution of the rate of return to the financing of pension disbursements – which is largely determined by the relationship between rate of return and growth in average income – is almost the same as in the base scenario. If the return reaches 3.12 percent, balancing is not activated.

With a return of 2.5 percent per year, balancing is activated in 2030, whereas with a return of 1.75 percent it is activated as early as 2015. As noted, with a return of 1 percent, balancing is activated in 2013. In all cases the decrease in the inkomstpension is never more than about 7 percent.

Net Contribution with Different Rates of Return, Pessimistic Scenario



Effect of Balancing on Inkomstpension and Guaranteed Pension, Pessimistic Scenario



If balancing is activated, indexation is reduced, lowering pension levels in relation to growth in average income. The guaranteed pension is so designed that retirees with a pension of 0–1.26 price-related base amounts (0–1.14 for married persons) receive an unchanged pension, as the guaranteed pension provides full compensation for the lower inkomstpension resulting from balancing. Individuals with a pension of 1.26–3.07 price-related base amounts (1.14–2.72 for married persons) receive compensation from the guaranteed pension for 48 percent of the reduction in the income-based pension due to balancing. Other pensioners receive no compensation at all. Compensation via the guaranteed pension means that the central government finances a portion of the reduction in the inkomstpension caused by negative developments. In the case of developments that normally entail contraction in the general economy, there will be a greater element of income redistribution in the national public pension system. The higher cost of the guaranteed pension will be equivalent at most to just above 13 percent of the saving to the pension system due to balancing.

Some Remarks on the Pension Level and the Compensation Rate

There are many methods of calculating the compensation rate in 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.

The income with which it is appropriate to compare the estimated pension depends on the income profile used in the calculation. If a straight-line income profile[15] is used, it is natural to compare the size of the pension with the income of the individual in the year before retirement.

If a concave[16] income profile is used, 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 the 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 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 the 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. Here, therefore, the concept of pension level is used to emphasize that what is shown is not a compensation rate.

[15] With a straight-line income profile, income for all ages in the labour force develops at the same rate as the general development of income until retirement age; a straight-line profile means that in each year the development of income for all individuals is assumed to be the same until they retire.

[16] With a concave income profile, the development of income for each age group will be age-specific each 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 reduce their work hours, a step that may be viewed as preparation for the transition to retirement.

The fact that the pension level in principle provides no information on the change in income at retirement does not prevent it from furnishing 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. On the other hand, if income at age 64 were used as the comparison income, compensation rates would be considerably higher in relation to the pension levels shown here.

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

Another question to decide 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 9 percent exceeds the earnings ceiling of 7.5 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 nine percent, and the pension level decreases by about eight percent.

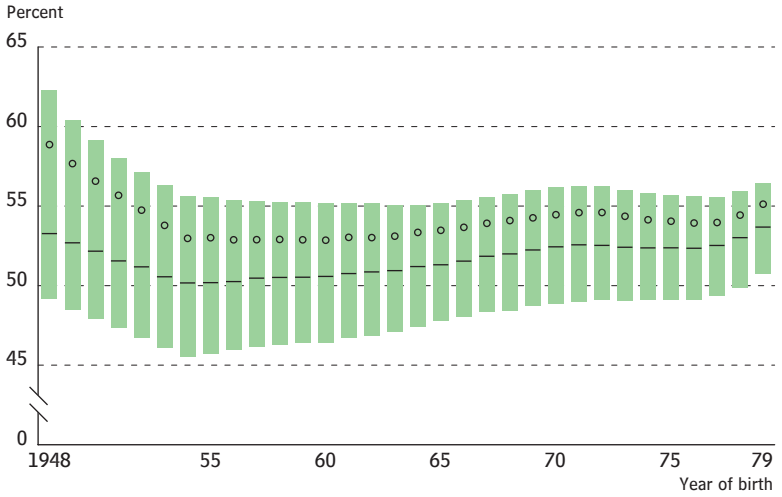
Here gross pensions are compared with gross incomes. As of January 1, 2007, a tax reduction for earned income took effect. Through this reduction, the tax on pensions is no longer the same as the tax on most kinds of income included in pension-qualifying income. Of the pension-qualifying income under the income ceiling, some 88 percent consists of earnings. With the tax reduction, the pension level decreases by approximately 2 percentage points if differences in the taxation of various types of income are considered.

The orange envelope contains pension projections for every individual insured 26 years old or more, according to that individual's actual earned pension credit. When the envelope is sent out in February/March, the latest data available are for income reported two years earlier. Thus, the envelope posted in February 2007 was based on all incomes of each individual through 2005.

In calculating the compensation rate on the basis of these forecasts, the pension forecast of each individual at age 65 in the zero-growth alternative, excluding any guaranteed pension, is divided by the pension-qualifying income of the same individual in 2005.[17] An average for each age/birth cohort has then been calculated by summation of all compensation rates and division of the sum by the number of individuals in the birth cohort.

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

Compensation Rates in the Orange Envelope – National Public Pension at Age 65 as a Percentage of Final Pension Qualifying Income. Guaranteed Pension not Included



In the diagram, the lines crossing the boxes mark the median, and the circles mark the mean. The boxes show the 25th to 75th percentiles (the interval containing 50 percent of the observations in each age group).

Source: 3 559 299 individual projections in the Orange Envelope for 2007

Both the assumptions underlying this calculation and the method applied differ in important respects from those in the calculation of 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 earned income for persons aged 16–64 in the respective year. In the diagram above, the comparison income is the respective individual's income below the ceiling in 2005, corresponding to final income since growth in income is assumed to be zero. For young individuals, who have earned few years of pension credit, this means that the compensation rate has been calculated with a virtually straight-line earnings profile. For individuals relatively close to the retirement age, the pension has been calculated on the basis of their actual incomes – this means that on average the profile will be concave.

The high compensation rates for the oldest birth cohorts are explainable partly by the fact that their own incomes, which are used as comparison incomes here, have begun to decrease. As a consequence, the compensation rate is higher with the method used here.[18] The reason why the variation in compensation rates decreases with each younger birth cohort is that the calculation becomes more fictitious and straight-line for each younger birth cohort. The slight increase in compensation rates beginning with the birth cohorts of the mid-1950's reflects the growing importance of the premium pension for these birth cohorts. With the assumptions of an excess return of 3.5 percent and a slower increase in life expectancy, the compensation rate will show a slight upturn beginning with birth cohort 1955.

[18] Another explanation is that the ATP share for older age groups is not adjusted downward with the increase in life expectancy in the same manner as in the new system.

Special Feature Article: The Lifetime Income Principle Compared to the 15- and 30-Year Rules

”Why compare with a system that wouldn't hold up anyway?” That is one response to the question which pension system, the old ATP system or the new reformed system, would provide a better pension. Probably beyond a doubt, economic and demographic developments made reform necessary. If no action at all had been taken, the burden of support would have become too heavy for those working in the event of low economic growth. And the ATP had not been left completely without corrective action – in the 1990's the indexation of ATP had been limited by various adjustments to the base amount. The pension reform was intended to make the system more responsive to economic and demographic developments, as well as to strengthen the connection between contribution and benefit. In addition, there had been considerable criticism as to the fairness of the 15- and 30-year rules[19] in the ATP system. The lifetime income principle, which entailed precisely this kind of strong connection, was considered more equitable, though only after certain provisions were added, such as pension credit for years with small children.

The old model often serves as a point of reference that makes it easier to understand the new one. In this case the old pension system, naturally enough, has served as a reference point in the design of the new one. This article shows the results when the different rules of the two systems for earning pension credit are applied, as exemplified by persons born in 1938–1940, whose lifetime income careers have been registered almost in their entirety.

Thus, the article treats only the effect of the reformed rules for pension credit on the size of the earnings-related old-age pension. There is no presentation of the total pension on which a retiree would have to live under the reformed system compared to the old system of the folkpension and the ATP. The old system as it was before the pension reform is no longer in effect at all, not even for older people, i.e. those born before 1938, who are not covered by the new rules for pension credit. In the years prior to 1999, pensions were calculated with a base amount reduced by 2 percent. When the pension reform took effect in 1999, this reduction was eliminated. Adjustment indexation of income-based pensions was introduced in 2002. From this point on, the ceiling on pension-qualifying income has been adjusted according to the income index.[20] In 2003 the folkpension and the ATP were recalculated and designated as the ATP. The special tax rules for pensioners became part of the new basic coverage provided by the guaranteed pension.

The article begins with a summary. Thereafter, it is organized into the following five sections:

Phasing in the New Pensions: This section shows the size of the pension actually earned by new pensioners under current rules. *The Inkomstpension:* This section briefly describes the design of the inkomstpension and the determination of the contribution rate. *Growth Affects Pensions:* The importance of growth to the inkomstpension is illustrated by a couple of examples. *Comparison of Rules for Earning Pension Credit for an Average Individual:* The inkomstpension and the ATP are compared in size; the calculations are based on an average income profile for the period 1960–2004. *Comparison of Rules on Pension Credit for Individuals:* Presentation of the respective outcomes under the old and reformed rules for earning pension credit, with the calculations based on pension points and pension balances, respectively, for persons born in 1938–1940.

For a description of the set of rules or the meaning of special terms, the reader is referred to the section How the National Pension System Works and to the List of Terms. Appendix A shows how the income index, annuity divisors and other factors are calculated.

[19] The 15-year rule: ATP is determined by the income earned in the 15 years of highest income. The 30-year rule: 30 years of pension credit are required for a full pension.

[20] As a consequence of the changed rule, the ceiling for 2007 is SEK 344 250 instead of SEK 308 250.

Summary

In the article it is noted that:

- *The reformed pension provides compensation equivalent to the old ATP system under the conditions on which the reform was based.*
- *For the birth cohorts of 1938–1940, a small portion of their ATP is replaced by the inkomstpension and premium pension. On average, the reformed pension is about 13 percent lower for men and 19 percent lower for women. When calculated with the annuity divisors for 1995, that is, if the period of retirement had not lengthened, the reformed pension would have been 8 percent and 15 percent lower, respectively. These results cannot serve as a basis for conclusions about other birth cohorts.*
- *The rules of the pension system affect people's behaviour. Just as older generations adapted to the provisions of the ATP system, younger generations are expected to adjust to the reformed system of rules. The birth cohorts analyzed can be assumed to have adapted in order to benefit from the rules of the ATP system, thus helping to explain the more favourable outcome for the ATP compared to the new rules.*

Both the inkomstpension and the premium pension are based on contributions; i.e., the total contributions paid in by the individual determine the size of her/his lifetime pension. In every system based on "saving," the interest, or return, on the savings account has a substantial effect on the final outcome. This is true not only of the average return for the entire period, but also of the variation in the return over time. A long period of high growth in both wages (income index) and the funds of the premium pension system, followed by an economic downturn and a declining stock market as retirement approaches, is not a favourable scenario for the individual. The ATP, on the other hand, is not affected automatically by such a development – the value of the individual's best income years remains unchanged.

To finance the system, it is necessary to adjust expenditure to the resources available. For the premium pension, the adjustment is automatic – fund shares lose value, and the individual's account decreases – as it is in the inkomstpension system through income indexation in combination with balancing. In the ATP system the size of pensions was adjusted by modification of the base amount that determined their revaluation.

The reformed pension was so designed that someone with a steady income progression, given real annual growth of about 2 percent, would receive a pension roughly equal to the ATP, provided a couple of additional conditions were met. The comparison was based on the assumptions that the ATP would be calculated according to the reduced base amount, and the inkomstpension according to life expectancy at the time of the decision on the pension reform. For the period 1960–2005, growth in terms of the income index has averaged 1.2 percent, though with considerable variation among different years. For persons born in 1940, an inkomstpension calculated on the basis of average incomes for the same period would be about as large as an ATP based on the same incomes. Also, one guideline for the design of the inkomstpension was that an individual

Pension Calculated on Basis of Average Incomes, Birth Cohort 1940

	Inkomstpension+premium pension (IP), SEK	ATP, SEK	IP in percent of ATP
Calculation in typical case with estimated annuity divisor for 1995			
Men	13 000	12 700	102
Women	9 800	10 400	94
If the reduced base amount had been retained			
Men	13 000	12 400	105
Women	9 800	10 200	96

Pensions calculated without phase-in by twentieths.

with a full working career and income progression in line with the general trend would receive a pension equivalent to 55–60 percent of final earnings. This is also the outcome with the alternative method where pensions are calculated by an index that follows the tendency of wages.

Calculations of the outcome for typical cases under the old and the reformed pension system, respectively, have been presented on various occasions. In this article, actual pension balances and ATP points for birth cohorts 1938–1940 have been used for comparing the rules of the old and reformed systems on pension credit. For every individual, an inkomstpension and an ATP have been calculated as if the entire income-related pension were paid out according to the respective set of rules. The comparison shows that the provisions of the ATP system for earning pension credit produce a better outcome than the rules of the inkomstpension for most men and for almost all women. Furthermore, the difference between the average ATP and the inkomstpension is greater for women than for men.

Thus, the article presents two types of pension calculations. Both are based on data for the period 1960–2005, but the results differ. In one case, based on average income, the outcome is roughly the same under the old and the reformed rules for pension credit. In the other case, based on individual pension balances and pension points, the 15- and 30-year rules are the more advantageous alternative for the individual. One explanation for the different outcomes is that because of transitional rules there are no inheritance gains in pension balances for the years prior to 1999; this factor partly explains the lower inkomstpension in the latter case. Another explanation is that a lifetime income profile based on average incomes shows steadier progression than is usually the case for various individuals – that factor tends to reduce the ATP in the former case.

The results of such calculations are not universally applicable. In this case they are dependent on the general growth in the period 1960–2005 and the individual earnings profiles of men and women in birth cohorts 1938–1940. Women in these birth cohorts show a different pattern of economic activity than women of later generations. During their economically active years women have shown a sharp increase in labour force participation,. This has probably affected their lifetime income profiles. A comparison between the lifetime ATP points earned by men and women indicates that women to a greater extent have had an income profile where they benefit if their pension level is determined by their best years of income. Women of working age today have had much stronger ties to the labour market from the very beginning, even though in many cases they have borne the primary responsibility for their children and families. In the reformed pension system, additional pension credit is given for years with small children; this provision may compensate for the lack of full-time work during these years.

Pension Calculated on Basis of Pension Credit and Pension Points, Birth Cohort 1940

	Inkomstpension+premium pension (IP), SEK	ATP, SEK	IP in percent of ATP
Result with annuity divisor for 2005			
Men	11 600	13 400	87
Women	8 700	10 800	81
If life expectancy had not increased, result with estimated annuity divisor for 1995			
Men	12 300	13 400	92
Women	9 200	10 800	85
If, in addition, inheritance gains had been distributed			
Men	12 800	13 400	96
Women	9 600	10 800	89
If the reduced base amount had been retained			
Men	12 800	13 100	98
Women	9 600	10 600	91

Pensions calculated without phase-in by twentieths.

Phasing in the New Pensions

The first birth cohorts to be covered by the new rules for earning old-age pension credit have now reached 65, the age when most people choose to retire. The new rules for pension credit are being implemented step by step, the so-called phase-in by twentieths.[21] *The new retirees will thus receive most of their pension as an ATP, in other words, a pension calculated by the old 15- and 30-year rules. The average size of a pension for someone aged 65 is shown below.*

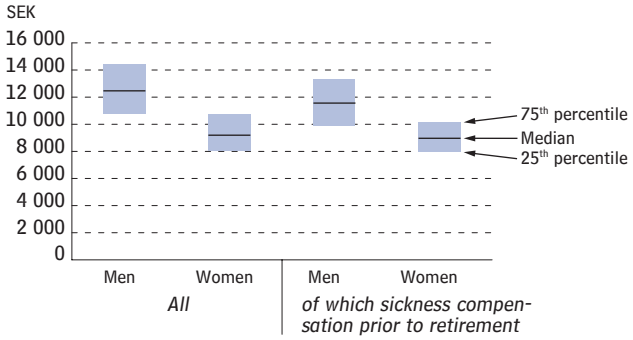
For men retiring in the year when they turned 65, the pension disbursed in December of that year averaged SEK 12 500. This amount includes the ATP and inkomstpension, the guaranteed pension for those with low pensions and the premium pension to the extent that the latter is being withdrawn. The average refers to the median; in other words, 50 percent of the men received a pension higher than this amount. Half of the men received a pension in the interval between SEK 10 800 (25th percentile) and SEK 14 500 (75th percentile)[22]. Roughly one third of the men left working life with sickness compensation and subsequently began to receive an old-age pension once they reached 65. For these men, the median was about SEK 1 000 less.

Women's pensions are much lower than men's; the difference between the medians is nearly SEK 3 500 per month. The 75th percentile for women is equivalent to the 25th percentile for men, or to put it another way, 75 percent of the women, but only 25 percent of the men, have a pension less than SEK 10 800. The smaller pensions of women are due both to generally lower earnings than for men and to the fact that women to a greater extent than men have worked part time and periodically stayed home to care for their children and families. The rate of labour force participation is much lower for these women than for women of working age today.

Over one half of the women have a guaranteed pension, compared to just over 10 percent of the men. The monthly disbursement averages roughly SEK 1 000 for both men and women.

Pension at Age 65 for Men and Women Born in 1940

Shown separately for recipients of sickness compensation prior to retirement



A presentation limited to inkomstpension and ATP disbursements, including the guaranteed pension, does not provide a full picture of a pensioner's financial standard. Most people also have some kind of negotiated pension, and for many with low pensions, the housing supplement constitutes a significant portion of total income. Moreover, not just the monthly amount in monetary terms is important, but also the level of the total pension in relation to previous earnings (level of compensation). However, a complete picture of the financial standard of pensioners, or their compensation level, is not provided here[23]. Rather, the focus is on differences between the ATP and the inkomstpension in regard to the rules for pension credit.

A comparison of old-age pensions for pensioners of different ages shows that the average pension is lower for the younger birth cohorts. This will be the case if the inkomstpension and premium pension are generally lower than the ATP which they replace. Furthermore, adjustment indexation, which has been favourable so far, has also contributed to differences among birth cohorts.[24]

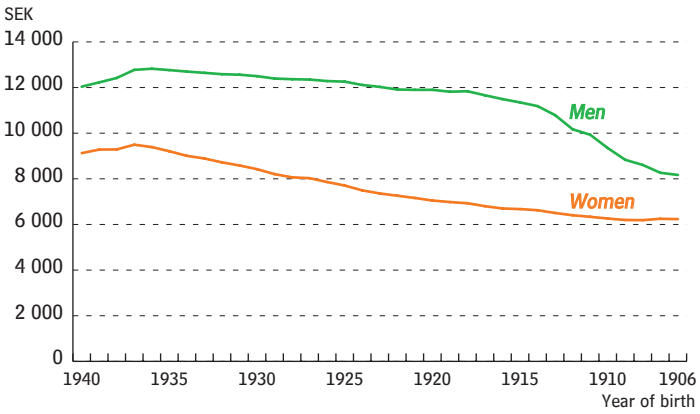
[21] Pensioners born in 1938 receive 16/20 of the full ATP that they have earned and 4/20 of the full inkomstpension that they have earned. For those born in 1939 the respective proportions are 15/20 and 5/20, and for those born in 1940, 14/20 and 6/20.

[22] Of the men, 25 percent and 75 percent, respectively, have a pension below these levels.

[23] To make it easier to judge the amount of a pension, it may be mentioned that in the same years the average pension-qualifying income (up to the ceiling of 8.07 income-related base amounts) at ages 16–64 for those with such income was SEK 18 300 per month. The corresponding amount for 64-year-olds, i.e. persons born in 1941, was SEK 15 900.

[24] The ATP is adjustment indexed beginning at age 65. Before age 65, pension points are price indexed. For two pensioners of different ages but with the same pension points, the older one will always have a larger ATP than the younger one, provided adjustment indexation has exceeded the change in the price-related base amount, i.e. been positive in real terms.

Old-Age Pensions in 2005. Average Amounts in December



The previous diagram shows the median amount for persons born in 1940 who drew a pension in 2005. The present diagram, which shows averages, also includes individuals who have chosen early withdrawal or partial withdrawal of their pensions and those with only a guaranteed pension.

Inkomstpension

The reformed system was so designed that an individual with a life-long working career and an average income would have a compensation level of 55–60 percent. With 2 percent growth in income, the reformed pension is then roughly equal to the ATP.

The inkomstpension and the premium pension are based on the lifetime income principle. An individual's pension balance depends on the number of years of work and the amount of income earned in these years. The size of a pension is set in relation to the expected number of disbursement years – the later a person retires, the higher the monthly amount. The size of a pension balance is also dependent on the amount of the pension contribution (premium) and the annual indexation of (interest/return on) the balance. Moreover, inheritance gains are added each year to the pension balance, and a deduction is made for costs of administration.

Pension Contribution

The amount of the pension contribution is decisive for the size of a pension. In the reformed system, the contribution is set to provide an inkomstpension of roughly the same magnitude as the ATP under certain conditions.[25] It was estimated that the ATP would be equivalent to 55–65 percent of the individual's final-year earnings[26] assuming annual growth of 2 percent in real wages. The calculation of the contribution rate was based on an individual who works for 40 years with an income progression in line with the general development of incomes in the economy. In such a case, the inkomstpension would be equivalent to 55–60 percent of final earnings assuming a retirement age of 65. This outcome would be achieved with a contribution percentage of 18.5 percent and an annuity divisor calculated on the basis of current life-expectancy statistics and a norm of 1.5 percent.[27]

In the subsequent work on the pension reform, a couple of changes were made that affected both the contributions levied and the size of the inkomstpension. From 1999 on, an individual's pension-qualifying income has been lowered by the individual pension contribution. This contribution of 7 percent is paid on incomes up to the ceiling of 8.07 income-related base amounts. As the individual pension contribution decreased taxable income, the income to be replaced by a pension after retirement was also reduced.[28] Later, however, a decision was made to grant a tax

[25] Proposed law 1993/94:250 Reforming the National Pension System.

[26] The lower the earnings, the higher the ATP in relation to final earnings, since the fixed amount of the folkpension then accounts for a larger share of the total pension.

[27] Without the norm in the annuity divisor, a higher contribution rate would be required.

[28] If the contribution of 7 percent had instead been levied as an employer contribution, the effect would have been the same. The adjustment of earnings to the higher contribution level, however, would have been more gradual.

deduction for the individual pension contribution. This means as a practical matter that the contribution rate has been cut to 17.21 percent for incomes under the ceiling. In addition, the norm in the annuity divisor was raised to 1.6, resulting in a slightly higher initial pension. In total, these two changes reduced pensions by 6 percent[29] for individuals fully affected by the contribution deduction.

Indexation

The income indexation of pension balances for the inkomstpension corresponds to the interest earned by the system. The change in value of the premium pension depends on the development of prices quoted for the funds chosen by the insured. Pension points for the ATP are price-indexed and thus not affected by the general development of real earnings.

Pension credit for the inkomstpension has been indexed as from January 1, 1962. For the first ten years, real growth in the income index averaged 2.8 percent per year. For the first half of the 1980's and in the mid-1990's, growth was negative. For the period 1961 through 2005 as a whole, the income index rose in real terms by 1.2 percent per year.[30]

The development of the index for the years 2000–2002 has been affected negatively by the deduction for the individual pension contribution. This deduction is estimated to have reduced the average pension-qualifying income for 1999 by 6 percent. The effect was that pension balances earned up to this point decreased to the same extent.[31] Without the phase-in by twentieths, which applies to the transitional generation, the curtailed growth of the index would have heavily impacted those soon to retire.

Growth Affects Pensions

Obviously the progression of an individual's income will always affect her/his income-based pension, though to a degree that varies with the design of the system. Moreover, the inkomstpension is strongly influenced by fluctuations in the general growth of the economy during the individual's working life, whereas the ATP is not affected at all.[32] *Possible variations in the size of the inkomstpension are shown in a couple of examples.*

The size of the ATP is based on the average number of pension points earned in the individual's 15 years of highest income. This means that the progression of the individual's real lifetime earnings is taken into account, and that a pension is linked to the individual's living standard during the best years of her/his working career. To put it another way, as a consequence of the 15-year rule, there is a certain real return on ATP points, which are price indexed, provided that the highest incomes were earned in later years of working life, as is the case for most people.

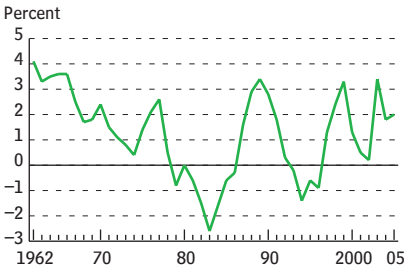
The inkomstpension is affected not only by the individual's own income progression, but also by the general development of incomes via income indexation. Both in monetary terms and in relation to previous earnings, the size of the inkomstpension is heavily dependent on the general growth in incomes. A person whose income has not kept up with general trend will receive a relatively high pension in proportion to final earnings – the return on pension credit has exceeded the increase in the individual's own earnings. Pension credit accumulated earlier in working life is worth more than credit recorded in the final years. This means that the value of the compounded pension balance is high in relation to the individual's final earnings; consequently, the compensation level will be high as well. The opposite will apply in the case of someone whose income

[29] With an annuity divisor of 14.84 instead of 14.99: (18.5*0.93/14.84)/(18.5/14.99) = 94 %

[30] Sharply higher employer contributions claimed a significant portion of the payroll capacity for wage increases in that period. During the period 1961–2005, average earnings (earnings per employee without regard to the ceiling and excluding sickness benefits and the like) rose in real terms by 1.6 percent per year. If employer contributions are included, the equivalent increase averages 2.2 percent per year.

[31] Reference is thus made here to the "retroactive" effect of the deduction for the contribution. The six-percent reduction described under the heading "Pension Contribution" refers to the effect of the contribution deduction on pension credit earned from 1999 on.

Real Annual Change in Income Index



[32] The stability of the individual's ATP may be misleading. It entails financial instability for the system, which can require action with subsequent effects on individual pensions.

has risen strongly, i.e., faster than the system's rate of return. Then the final working years are also the best years from a pension standpoint. With high final earnings, the compensation rate is lower, though the monetary amount of the pension may be the same in the two cases.[33]

The impact of growth on the inkomstpension is illustrated in some examples. In the examples, pension balances earn a return according to two alternative index series. With one alternative, the development of the index in real terms from the 1960's until retirement is in reverse order.[34] The established income index and the reversed index begin with the same value in 1961 and end with the same value in 2005. The development during the period 1961–2005, however, is quite different for the two index series, and the effect on the ultimate size of the individual's inkomstpension is substantial.

In the second alternative, the indexation factor is the development of the individual's own pension-qualifying income. This alternative is thus the same as for an individual whose income progression is fully in line with the general rate of growth in the economy for her/his entire career, in other words, a typical individual in the assumptions used in calculating the contribution rate of 18.5 percent.

The income index showed its best growth in real terms in the early years of the period, when individual pension balances were still small. In the 1960's, the income index increased by an annual average of 2.8 percent, compared to 1.5 percent in the final ten-year period prior to retirement. Consequently, the alternative inkomstpension, as calculated by the reversed index, is higher. When individual wage progression is used as the index, the inkomstpension in this case is much lower. As expected, however, the pension is equivalent to 55–60 percent of final earnings – the contribution rate of 18.5 percent was based on precisely these assumptions.

Comparison of the Rules on Pension Credit for an Average Individual

In this section the size of the inkomstpension in a fictitious fully functioning stage and based on actual average incomes and actual income growth in the period 1960–2005 is compared with the ATP calculated on the same basis.

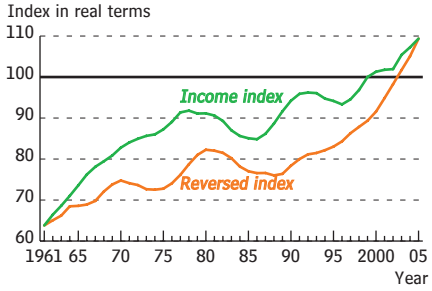
As previously noted, one point of departure for the pension reform was that the inkomstpension should be roughly the same in amount as the ATP for a person who had worked at least 40 years with an income progression that followed the income index, assuming real annual growth of approximately 2 percent and the same life expectancy as at the time of the decision on the reform. In addition, the ATP was calculated with the use of a base amount that had been reduced by 2 percent. In this section a comparison is made between the amounts of the inkomstpension and of the ATP for a man and for a woman earning an average income from 1960 until retirement in 2005. The two lifetime income profiles used in the example correspond to the average pension base[35] for men and women, respectively, born in 1940 and with at least 40 years of pension credit.

The inkomstpension has been calculated with a contribution rate of 18.5 percent for all years.[36] For the sake of similarity with a fully functioning stage, inheritance gains have been distributed to pension balances for the period 1960–1998 as well. The annuity divisor of 14.84, which would have applied at the time of the decision on the pension reform, has been used in the calculation. However, the ATP has been calculated with the

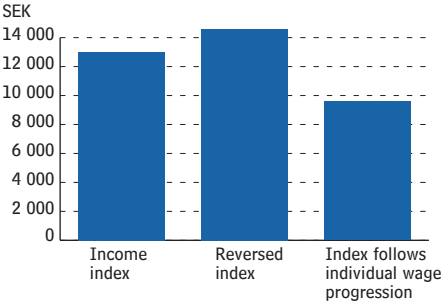
[33] This occurs if individuals have the same initial earnings and, for example, the growth in individual earnings is 1 percent and the general rate of growth is 2 percent, and vice versa in the opposite case.

[34] That is, the chronological order of annual growth rates is reversed. Thus, the growth rate for 1962 corresponds to actual growth in 2005, 1963 corresponds to 2004 etc.

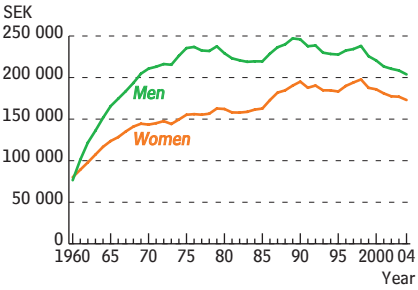
Real Progression of Income Index and "Reversed Index," Respectively



Inkomstpension Calculated with Various Kinds of Index



Average Pension Base* for Persons Born in 1940, 2005 Price Level

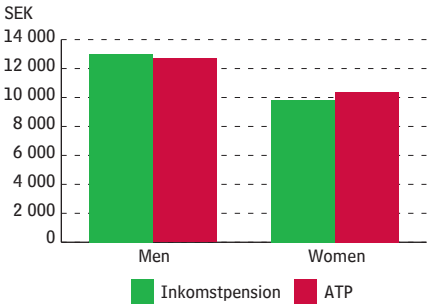


* The pension base consists of pension-qualifying income and pension-qualifying amounts for years with small children.

[35] But excluding pension-qualifying amounts for disability pensions/sickness compensation.

[36] This means that no consideration has been given to the special conditions that may be present for the premium pension.

Income-Related Pension Calculated from Average Incomes, Men and Women Born in 1940



established price-related base amount, in other words, without the two-percent reduction. The amounts of the pensions have been calculated without phasing-in by twentieths, i.e. as if the entire pension were disbursed as either an ATP or an inkomstpension.

The result of the calculation for those born in 1940, given the development of the income index during their economically active years, shows that the inkomstpension and the ATP are roughly equal when the pensions are based on average incomes.

Comparison of the Rules on Pension Credit for Individuals

In the preceding section, it was shown that an inkomstpension for someone who had worked for the entire period 1960–2004 with an average income would have been roughly the same as an ATP. This section shows the results of the old and the new rules on earning pension credit based on individual lifetime incomes for birth cohorts 1938–1940.

The three birth cohorts 1938–1940 are the first to receive an old-age pension calculated by the rules of the inkomstpension system. For several reasons, however, conditions are not the same as in a fully functioning system. Pension credit is included as from 1960, when the people concerned were 22, 21 and 20 years old, respectively. These birth cohorts thus have a slightly curtailed lifetime income history registered in the pension system. Furthermore, no credit has been given for compulsory national service or for study. Inheritance gains, which can be regarded as a kind of interest on pension balances, have not been allocated for the years prior to 1999. It is estimated that pension balances are about 4 percent lower than they would have been if inheritance gains had been allocated retroactively. The effect of the deviations from a fully functioning system is limited for today's retirees, whose pensions consist largely of the ATP. It may be added that the same holds for the effect on pensions of the deduction for the individual pension contribution. This contribution reduces future pension-qualifying income, but it has also reduced the income index and thus entire accumulated pension balances.[37] The effect on the inkomstpension is therefore much greater than on the ATP, which for these birth cohorts, moreover, has been calculated on the basis of incomes earned before 1999.

On various occasions, the resulting pension under the old and the reformed pension system, respectively, and in an imaginary stage of full functioning, has been shown for different types of individuals and in different scenarios. Now it is possible to provide the same demonstration for actual pension balances and ATP credit, respectively, for virtually an entire working career. However, the use of actual data as a basis for the calculations does not automatically mean that the results can be considered more generally applicable. How the calculations were performed is described in greater detail below.

How Pensions Have Been Calculated

The base for comparison of individual outcomes in the inkomstpension and ATP system, respectively, consists of individuals who have begun to withdraw a pension in the year of their 65th birthday. The pension has been calculated as a full withdrawal beginning with the month of birth. The guaranteed pension is not included in the calculations.

The ATP is the sum of the ATP[38] credit earned and the folkpension supplement, calculated in 30ths according to the number of years of pension credit. Because of the folkpension supplement, the ATP is higher for

[37] However, adjustment indexation of pension disbursements was not reduced.

[38] With an income-indexed ceiling on pension credit as from 2001/2002.

single individuals than for married pensioners under the same conditions otherwise. In this presentation, however, the folkpension supplement is assumed to be the same for single and married individuals. The pension has been calculated with the established (unreduced) base amount. The pension has been adjusted up to 20/20, in other words, as if the entire income-related pension had been paid out as an ATP.

The inkomstpension is based on the registered pension balances of individuals. Because of the time lag in taxation, the pension credit for the two most recent years is not known at the time of retirement. To provide a more accurate comparison, this pension credit has been added to the pension balance. The annuity divisor of 14.84 has been used for all three birth cohorts 1938–1940. The comparison between birth cohorts is therefore not affected by changes in life expectancy occurring after 1994.[39] The inkomstpension has been adjusted up to 20/20, in other words, as if the entire income-related pension had been paid out as an inkomstpension.

The premium pension has been treated in a more standardized manner in the comparison. It has been possible to earn a premium pension from 1995 on; thus, the premium pension constitutes only a minor portion of the total pension for those who have now reached 65. The amount disbursed in December of the year when the individual concerned turns 65 has been adjusted up to 20/20 and added to the inkomstpension.

[39] That is, after the Swedish Parliament's decision on pension reform.

Outcome for Those with 40 Years of Pension Credit

In the ATP system an individual earned full pension credit after working for 30 years; in other words, 30 years of paid-in contributions sufficed to provide the individual with a lifetime pension equivalent to 55–65 percent of final earnings. With current life expectancy, retirement at age 65 means that a pension will be paid for roughly 19 years. When the ATP system was introduced, the retirement age was higher (67), and the life expectancy of the population shorter – the average duration of life as a retiree was about 13 years.

In the inkomstpension system the contribution rate has been set with 40 years of pension credit as a guidepost. Therefore, the study is focused primarily on individuals with many years of working life.

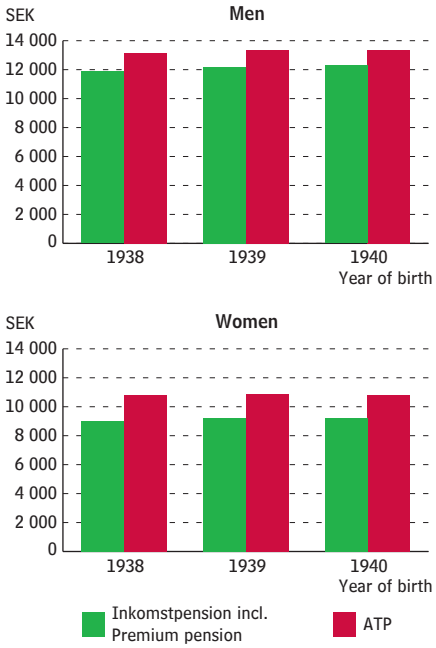
In this presentation, years of pension credit include years with pension-qualifying income or pension-qualifying amounts for years with small children – the latter has been credited primarily to women. It is thus not totally correct to refer to these years of pension credit as "years of work," as is sometimes the case in the text.

Almost two thirds of the men who retired at age 65 had worked for at least 40 years.[40] Not as many women had 40 years of pension credit, but the number increases with each age group. Half of the women born in 1940 had at least 40 years of pension credit, compared to a third of those born in 1938.

When the pensions of persons born in 1938–1940 are calculated entirely by the rules of the reformed system and compared with the pensions calculated by the 15- and 30-year rules of the ATP system, it is shown that the average ATP is higher than the total of the inkomstpension and the premium pension. For men the difference is just above SEK 1000 per month; for women it is slightly more than SEK 1 500 per month.

These calculations, based on actual pension balances and pension points of individuals, thus show a different result than the calculations in the previous section, which are based on the average incomes of individuals. Why the inkomstpension for birth cohort 1940 is lower, and the ATP higher, than in the previous calculation may be explained as follows:

Average Income-Related Pension (20/20) with at Least 40 Years of Pension Credit, 2005 Price Level



[40] The remainder, about 35 percent, primarily represents disability pensioners and people who have moved to Sweden as adults.

For calculating an average inkomstpension, it is generally of minor importance whether that average corresponds to the mean value of individual pensions or is based on the mean value of individual incomes. The difference in the results noted here is due primarily to the absence of inheritance gains from pension balances for the years prior to 1999. For the ATP, on the other hand, it may be important how a so-called average pension has actually been calculated. The ATP is based on a selection of the individual's incomes, those in the 15 years with the most pension points. When different calendar years are the best income years for different individuals, average annual incomes as a group show a more even lifetime income profile than profiles of individual earnings. As a consequence, the ATP based on average incomes will be lower than the mean value of the ATP of individuals. Therefore, when the comparison is based on individual pensions, a greater difference may be expected in the outcomes under the different rules for earning pension credit.

The ATP is higher than the inkomstpension for 90 percent of the men born in 1940; for the older birth cohorts, the proportion is even greater. For virtually all women, the ATP is higher.

The results reflect the conditions prevailing during the period from 1960 to the present. The size of a pension is affected by the progression of the individual's earnings over her/his economically active lifetime. The lifetime income profile can be separated, in turn, into two components: a career profile "typical of the period" and the general growth pattern for the period.

One circumstance specific to the period is the gradually rising rate of labour force participation for women.[41] Women born in 1938–1940 have had a different pattern of economic activity than women of subsequent generations, for whom gainful employment has been more a matter of course. To a greater extent than the men, the women appear to have had an income profile where they would benefit from a pension level based on the years of highest earnings. The difference between the average income for the 15 best years of earnings and the average lifetime income, respectively, is greater for these women than for the men.

Growth affects the comparison of the old and new systems. One assumption in the design of the reformed system is that with low growth the inkomstpension will generally be less than the ATP, whereas with high growth the result will be the opposite, with real annual growth of 2 percent as a sort of level for comparison. During the period studied here, real annual growth in the income index has averaged 1.2 percent, but with substantial variations among years.

The comparisons above have been based on individuals with at least 40 years of pension credit. Most women with a higher inkomstpension, however, have fewer than 40 years of pension credit, as is shown in the next section.

When the Outcome Is Better with the Inkomstpension

A long working career contributes to a good inkomstpension. But even for someone with only a few years of pension credit, the inkomstpension may be higher than the ATP. One example would be an individual who had earned pension credit early in life. Pension credit for the inkomstpension increases with the general growth of income, thus maintaining its value relative to the level of income, unlike the ATP system, in which pension points are price-indexed.

[41] In the period 1970–1990 women's labour force participation increased from 60 percent to more than 80 percent, whereas the rate for men varied between 85 and 90 percent. The rising rate of labour force participation is also reflected in the appreciable increase with each birth cohort in the proportion of women with at least 40 years of pension credit.

If the totality of men whose inkomstpension is higher than their ATP is distributed by number of ATP years (with no upper limit of 30 years) and average ATP points (for the 15 best years), it is evident that most of them have more than 40 years of ATP points, but also that a small number have 10 or fewer ATP years.

For women, there is a substantial difference between the concepts of ATP years and years of pension credit; in the latter, credit for the inkomstpension is earned for years with small children. Parental allowances were not treated as pension-qualifying until 1974, when women in these birth cohorts were largely past the ages when childbirth is most frequent.

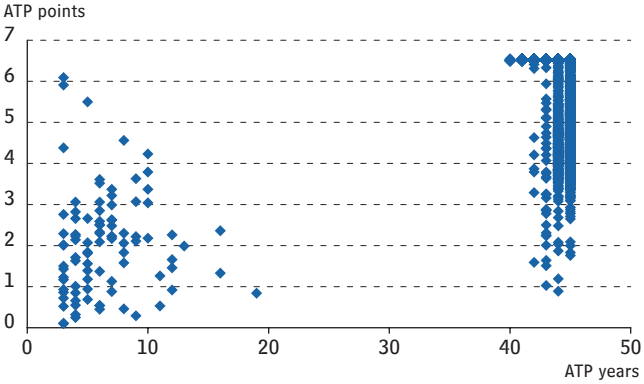
The women with a better outcome under the pension credit rules of the inkomstpension system are not at all restricted to the same extent to those with many years of pension credit. Rather, years with small children appear to have made a difference in the resulting pension. For a majority of these women, the total number of years of pension-qualifying income and credit for years with small children exceeds the number of ATP years.

It is also possible that these women had their best income years early in life, before they formed families. Thereafter, they may have worked part time to a greater extent, with lower incomes as a consequence. With this kind of lifetime income profile, the inkomstpension may result in a better outcome thanks to income indexation of pension credit.

As previously mentioned, the calculations were performed with the annuity divisor that would have applied at the time of the decision on pension reform. The actual annuity divisors at age 65 for birth cohorts 1938–1940 are higher because of the sharp increase in life expectancy, thus reducing the inkomstpension by about 5 percent. The smaller pension due to the higher annuity divisors may be compensated for by delaying retirement by 8–9 months. This is the case for someone who would have received her/his entire pension under the new system, precisely in accordance with the calculations performed above. In reality, pensioners in these birth cohorts receive only 20–30 percent of their pension from the new system. Since full pension credit is earned in the new system as from age 65, much less time is required to neutralize the effect of the increase in life expectancy.

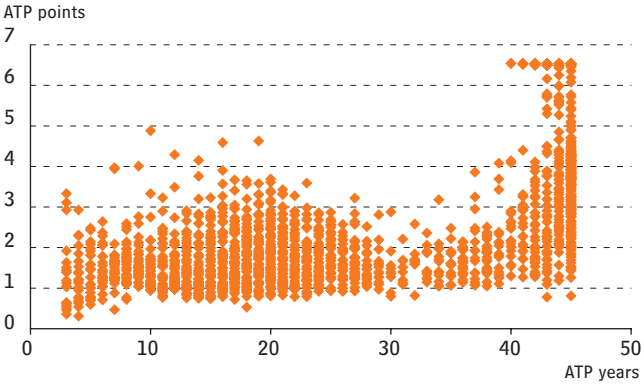
Best Outcome with Inkomstpension

Men born in 1940, distribution by ATP points and ATP years



Best Outcome with Inkomstpension

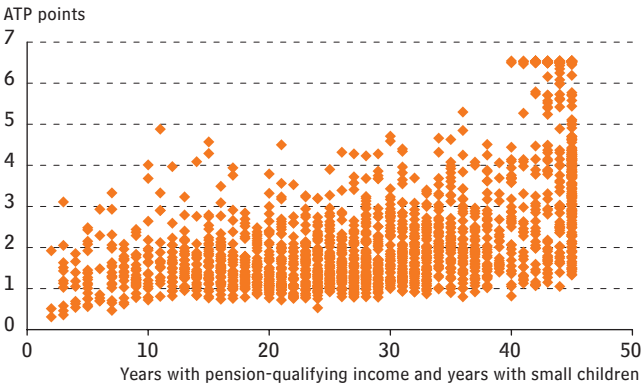
Women born in 1940, distribution by ATP points and ATP years



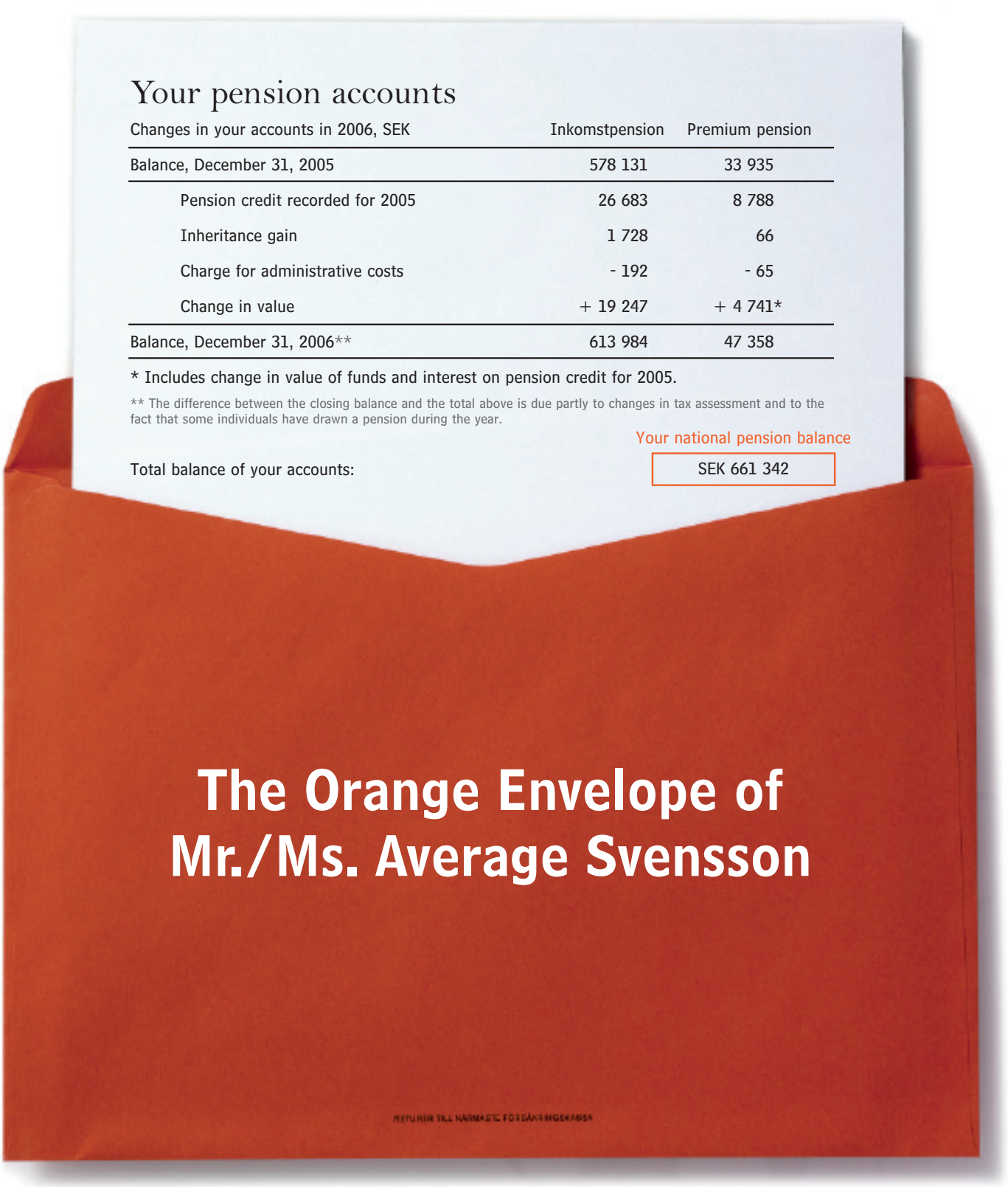
The impression that this diagram contains more dots than the diagram for men is an optical illusion.

Best Outcome with Inkomstpension

Women born in 1940, distribution by ATP points, years with pension-qualifying income and years with small children



This diagram shows the same individuals as the diagram above, but distributed according to pension-qualifying income and years with small children instead of ATP years.


Your pension accounts
Changes in your accounts in 2006, SEK
Inkomstpension
Premium pension
Balance, December 31, 2005
578 131
33 935
Pension credit recorded for 2005
26 683
8 788
Inheritance gain
1 728
66
Charge for administrative costs
- 192
- 65
Change in value
+ 19 247
+ 4 741*
Balance, December 31, 2006**
613 984
47 358
* Includes change in value of funds and interest on pension credit for 2005.
** The difference between the closing balance and the total above is due partly to changes in tax assessment and to the fact that some individuals have drawn a pension during the year.
Your national pension balance
Total balance of your accounts:
SEK 661 342
The Orange Envelope of
Mr./Ms. Average Svensson

All pension accounts

Changes during 2006, SEK*	Inkomstpension	Premium pension
Balance, December 31, 2005	3 407 387 000 000	193 077 000 000
Pension credit recorded for 2005	157 262 000 000	50 001 000 000
Inheritance gain	10 182 000 000	375 000 000
Charge for administrative costs	- 1 130 000 000	- 370 000 000
Change in balance	+ 113 439 000 000	+ 26 972 000 000**
Balance, December 31, 2006***	3 618 703 000 000	269 447 000 000

* Rounded off to the nearest million.

** Includes change in value of funds and interest on pension credit for 2005.

*** 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 3 888 150 000 000

Total of All Envelopes

When read out loud, the total of all orange envelopes is as follows: three trillion, eight hundred eighty-eight billion, one hundred fifty million Swedish kronor. The total amounts of the inkomstpension are found in Table A, Note 14, 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 2006 in 7 Minutes:

This section summarizes the financial position and development of the two earnings-related components of the national pension system – the inkomstpension and the premium pension – for 2006.

Inkomstpension

The inkomstpension system is a pay-as-you-go system, where paid-in pension contributions in principle are used directly to pay the pension disbursements of the same year. The buffer fund manages the surpluses or deficits that arise from differences between pension contributions received and pensions disbursed. The assets of the system are the value of pension contributions – the contribution asset – and the buffer fund. The contribution asset is calculated through multiplication of the year's pension contributions by the average time that one Swedish krona (SEK 1) is expected to remain in the system, – the turnover duration of the system.

The pension liability to the economically active is 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 remainder of their lives. The pension liability increases primarily through annual indexation of pensions and the balances of pension accounts – in other words, by the change in average income in Sweden.

The net income for the year is calculated as the difference between the change in system assets and the change in the pension liability. Net income is affected by a large number of macroeconomic and demographic factors. Normally the principal factor in the short run is growth in employment; in the long run, demographic factors are most important.

The balance ratio is a measure of the financial position of the system and is calculated as system assets divided by the pension liability. A balance ratio less than 1.000 activates the balancing mechanism of the system as a part of indexation. The pension system is then guided toward a surplus/deficit of SEK 0 through reduced indexation of pensions and pension balances. 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.

Five-Year Review

Billions of SEK

	2006	2005	2004	2003	2002
Buffer fund	858	769	646	577	488
Contribution asset	5 945	5 712	5 607	5 465	5 301
Total assets	6 803	6 490	6 253	6 042	5 789
Pension liability	6 703	6 461	6 244	5 984	5 729
Surplus	100	28	9	58	60
Balance ratio	1.0149	1.0044	1.0014	1.0097	1.0105

Right after the first balance ratio was established, there was a declining trend for several years. Since 2005, however, the balance ratio has been increasing. The balance ratio for 2008 is calculated on the basis of the financial position of the system as of December 31, 2006. If the calculated ratio had been less than 1.0000, it would have affected indexation in 2007/2008.

Net Income for 2006. The net income of the inkomstpension system for 2006 was SEK 71 billion, thus increasing the surplus of the system to SEK 100 billion. One of the main reasons for the year's positive result was that growth in paid-in pension contributions exceeded growth in the income index, partly thanks to higher employment in 2006. Another factor contributing to the positive result was the return on the National Pension Funds.

Change in Assets in 2006. The assets of the inkomstpension system increased by SEK 313 billion, or 4.8 percent. Of this amount, the contribution asset accounted for SEK 224 billion. Pension contributions received rose by 4.1 percent, adding SEK 237 billion to the contribution asset. However, the contribution asset was reduced by SEK 13 billion because of a decrease in turnover duration from 32.1 to 32.0 years. The explanation is that the average age for earning pension credit rose from 43.4 to 43.5 years. The change occurred between 2004 and 2005, but as the median value for the three most recent years is used in the calculation, the effect is reflected in 2006.

The buffer fund, that is, the First-Fourth and Sixth National Pension Funds, increased by a total of SEK 89 billion. The return of 10.7 percent on the buffer fund accounted for more than SEK 83 billion. Pension contributions exceeded pension disbursements; after the deduction for costs of administration, this difference accounted for the remainder, just over SEK 5 billion, of the increase in the buffer fund.

Change in the Pension Liability in 2006. The pension liability rose by SEK 242 billion, or 3.7 percent. Indexation of 3.0 percent accounted for SEK 194 billion of the increase. Since 1995 the annual rate of indexation in the inkomstpension pension system has averaged 2.9 percent. As a result of longer life expectancy in 2006, pensions will be disbursed for 21 more days on average, increasing the pension liability by SEK 33 billion. The remainder of the increase in the pension liability is explained primarily by the fact that new pension credit and ATP points, including certain adjustments, exceeded the year's disbursements.

Financial Position as of December 31, 2006. As of December 31, 2006, system assets exceeded the pension liability by 1.49 percent. The balance ratio of the system for 2008 is thus calculated at 1.0149.

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

How is the Balance Ratio Affected by Changes in Certain Variables?

Variable	Change in variable	Change in balance ratio
Contribution base	+1 %	+0.9 %
Average income*	+1 %	−0.3 %
Return on buffer fund	+10 percentage points	+1.1 %
Retirement age	+1 year	+1.9 %
Age for entering labour market	−1 year	+1.3 %

* All of the increase is in incomes above the ceiling on earnings.
No smoothed values have been used in the calculation.

Premium Pension

The premium pension system is a funded system where pension savers themselves choose the funds in which their premium pension moneys are 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 related 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.

Net Income for 2006. The result for the year was a net income of SEK 56 million. In addition to the positive result of SEK 81 million from fund operations, net income has been affected by SEK 15 million from conventional insurance, by SEK 15 million from trade in fund shares via trade inventory and by net interest of SEK – 55 million. The technical result of insurance operations, that is, the result of fund operations and conventional insurance, should be positive, one reason being to cover costs of interest. The outcome for 2006, however, exceeded estimates because of the higher market value of assets, resulting in higher contributions, while at the same time costs were lower than expected.

The year 2006 is the first in which pension credit earned by pension savers (new money) is invested in December of the same year instead of January the year after. This means that the premium revenue of the Premium Pension Authority (PPM) doubled in 2006, as is reflected in the PPM's income statement. The fund holdings of retirees increase with the new pension credit before the annual recalculation of pensions disbursed, with a consequent effect on pension disbursements for coming years. The change is possible because information from the Swedish National Tax Board and the Swedish Social Insurance Agency is now received somewhat earlier by the PPM.

Change in Assets in 2006. Funded premium pension assets increased by SEK 76 427 billion during the year; of this amount, new pension credit accounted for SEK 50 001 billion and an increase in value for SEK 26 987 billion. The increase in value during the year was about 12 percent. The annual return of the premium pension system has averaged 5.9 percent since the system received its first contribution revenue in 1995.

Change in the Pension Liability in 2006. The pension liability rose by SEK 76 371 billion in 2006. The change was due to new pension credit earned, to a positive result of capital management and to disbursement of pensions. The rebate rate averaged 6.0 percent in 2006.

Five-Year Review

Millions of SEK

	2006	2005	2004	2003	2002
Fund insurance	268 708	192 770	125 024	94 124	59 416
Conventional insurance	739	307	94	31	4
Total insurance assets	269 447	193 077	125 118	94 155	59 420
Pension liability	269 447	193 077	125 120	94 157	59 422
Net income/-loss for the year	56	57	48	–109	–365

The value of pension savers' premium pension assets as of December 31, 2006, was SEK 269 447 million.

The Earnings-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	2006	2005	Change
Pension contributions	233 625	203 176	30 499
Pension disbursements	–176 388	–169 232	–7 156
Return on funded capital	110 342	159 383	–49 041
Administrative costs	–2 406	–2 319	–87
Total	165 173	191 008	–25 835
Change in contribution asset			
Value of change in contribution revenue	236 612	163 453	73 159
Value of change in turnover duration	–12 652	–49 367	36 715
Total	223 960	114 086	109 874
Change in pension liability*			
New pension credit and ATP points	–241 169	–213 180	–27 989
Pension disbursements	176 364	169 176	7 188
Indexation/change in value	–221 144	–206 585	–14 559
Value of change in life expectancy	–32 764	–36 519	3 755
Inheritance gains arising	9 865	9 150	715
Inheritance gains distributed	–10 557	–9 542	–1 015
Deduction for administrative costs	1 500	2 073	–573
Total	–317 905	–285 427	–32 478
Net income for the year	71 228	19 667	51 561

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

Balance Sheet, millions of SEK

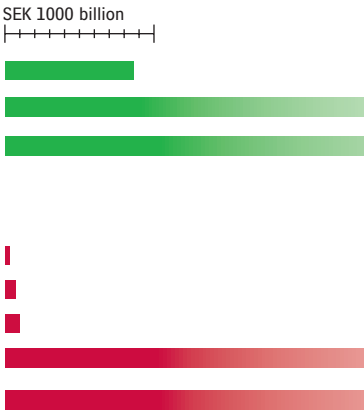
Assets	12/31 2006	12/31 2005	Change
Fund assets	857 937	769 190	88 747
Insurance assets	269 447	193 077	76 370
Other assets	25 956	47 410	–21 454
Contribution asset	5 944 638	5 720 678	223 960
Total assets	7 097 978	6 730 355	367 623
Liabilities and results brought forward			
Opening results brought forward	26 770	7 104	19 666
Net income for the year	71 228	19 667	51 561
Closing results brought forward	98 000	26 770	71 228
Pension liability	6 972 457	6 654 553	317 905
Other liabilities	27 521	49 032	–21 511
Total liabilities and results brought forward	7 097 978	6 730 355	367 623

Inkomstpension, Income Statement and Balance Sheet

Income Statement, millions of SEK

Change in fund assets	Note	2006	2005	Change
Pension contributions	1	183 624	179 552	4 072
Pension disbursements	2	–176 156	–169 127	–7 029
Return on funded capital	3	83 355	114 598	–31 243
Administrative costs	4	–2 077	–2 032	–45
Total		88 746	122 991	–34 245
Change in contribution asset				
Value of change in contribution revenue	5	236 612	163 453	73 159
Value of change in turnover duration	6	–12 652	–49 367	36 715
Total		223 960	114 086	109 874
Change in pension liability*				
New pension credit and ATP points	7	–191 168	–189 556	–1 612
Pension disbursements	2	176 132	169 071	7 061
Indexation	8	–194 172	–161 809	–32 363
Value of change in life expectancy	9	–32 764	–36 519	3 755
Inheritance gains arising	10	9 490	8 854	636
Inheritance gains distributed	10	–10 182	–9 246	–936
Deduction for administrative costs	11	1 130	1 738	–608
Total		–241 534	–217 467	–24 067
Net income for the year		71 172	19 610	51 562

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



Balance Sheet, millions of SEK

Assets	Note	12/31 2006	12/31 2005	Change
Fund assets	12	857 937	769 190	88 746
Contribution asset	13	5 944 638	5 720 678	223 960
Total assets		6 802 575	6 489 868	312 707
Liabilities and results brought forward				
Opening results brought forward		28 392	8 783	19 610
Net income for the year		71 172	19 610	51 562
Closing results brought forward		99 565	28 392	71 172
Pension liability	14	6 703 010	6 461 476	241 534
Total liabilities and results brought forward		6 802 575	6 489 868	312 707

Premium Pension, Income Statement and Balance Sheet

Income Statement, millions of SEK

Change in fund assets	Note	2006	2005	Change
Pension contributions	1	50 001	23 624	26 377
Pension disbursements	15	–232	–105	–127
Return on funded capital	16	26 987	44 785	–17 798
Administrative costs	17	–329	–287	–42
Total		76 427	68 017	8 410
Change in pension liability*				
New pension credit	18	–50 001	–23 624	–26 377
Pension disbursements	15	232	105	127
Change in value	19	–26 972	–44 776	17 804
Inheritance gains arising	20	375	296	79
Inheritance gains distributed	20	–375	–296	–79
Deduction for administrative costs	21	370	335	35
Total		–76 371	–67 960	–8 411
Net income for the year		56	57	–1

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

Balance Sheet, millions of SEK

Assets	Note	12/31 2006	12/31 2005	Change
Insurance assets	22	269 447	193 077	76 370
Other assets	23	25 956	47 410	–21 454
Total assets		295 403	240 487	54 916
Liabilities and results brought forward				
Opening results brought forward		–1 622	–1 679	57
Net income for the year		56	57	–1
Closing results brought forward		–1 565	–1 622	56
Pension liability	24	269 447	193 077	76 371
Other liabilities	25	27 521	49 032	–21 511
Total liabilities		296 968	242 109	54 859
Total liabilities and results brought forward		295 403	240 487	54 916

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 earnings-related old-age pension system includes the inkomstpension, ATP and premium pension benefits.[42]

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

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” refers 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 in which 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 used are set forth in the annual reports of the National Pension Funds and 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 PPM describes the accounting principles used for the premium pension, these are only presented in summary form in this Report. For further information, see www.ppm.nu.

Where Do the Figures Come From?

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

In the accounting for the pension system, the data for the First–Fourth and Sixth National Pension Funds have been taken primarily from the annual reports of each fund. The buffer funds prepare their own reports according to the Law on National Pension Funds (2000:192). On the basis of current

provisions for comparable financial companies, the funds have also developed common principles for accounting and valuation.

In the accounting for the pension system, the data on the premium pension are presented largely in accordance with the PPM Annual Report, which has been prepared pursuant to the Law on Annual Reports of Insurance Companies (1995:1560), as well as other governing criteria. Certain items have been simplified and aggregated for purposes of clarity.

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, although in cases where the balance ratio exceeds one (1.0000), assets and liabilities will develop at slightly different rates over time. When the balance ratio is less than one (1.000), the provisions for balancing establish in principle an absolute link between the respective rates of change in liabilities and assets.[43]

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.

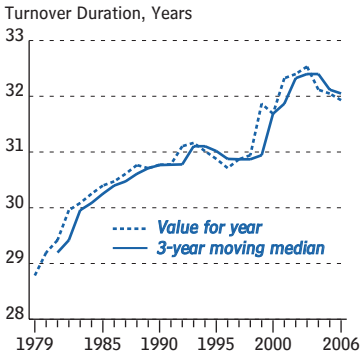
The valuation of the contribution flow and of the pension liability is based almost solely on the conditions prevailing at the time of valuation. This does not reflect a belief that all these factors will remain totally constant; rather, the accounting is so designed that it will not include changed 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 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.[44] Turnover duration expresses the expected average length

[43] 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 overstatement, 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.

[44] The method of calculating turnover duration is described in Equation 3, Appendix B.



	Change measured percent	Change in percent with 3-year moving median
3	0	
2	0	4
1	148	148
0	02222244455568	0000022223445668
-0	2245556	02359
-1	3	

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

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 stating 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 the last 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 the calculation of 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.

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 only about three percent of the total pension liability. The difference between estimated and confirmed pension credit is deducted in the annual report for the following year.[45]

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 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 Social Insurance Agency records, and is expressed in terms of so-called economic annuity divisors.[46] In economic annuity divisors, consideration is given to any correlation between size of pensions and pay-out period.

[45] See Note 14, Table A.

[46] See Formula 4.3 in Appendix B.

One accounting principle followed is that the report is to be based only on events or transactions that have occurred and have been 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 Regulations for the Annual Report (2002:135), 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 its proposed Law (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, 2006, is calculated by estimating the ATP to be received at age 65 by each annual cohort born in the years 1942–1953. This amount is multiplied by the economic annuity divisor of the accounting year for persons aged 65. The present value of this amount is then calculated through discounting it by the assumed annual change of two percent in the income index from the year when each birth cohort reaches age 65 until the year of the accounts. That amount is reduced by the similarly discounted value of each birth cohort's expected contribution inflow until its members reach 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

The Premium Pension Authority (PPM) prepares its annual reports as prescribed by the Annual Accounts Act for Insurance Companies [lagen (1995:1560), ÅRFL] and in accordance with the law (1998:710) containing certain provisions applicable to the Premium Pension Authority. 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 2003:13) 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 remaining time 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 invested in fund shares.

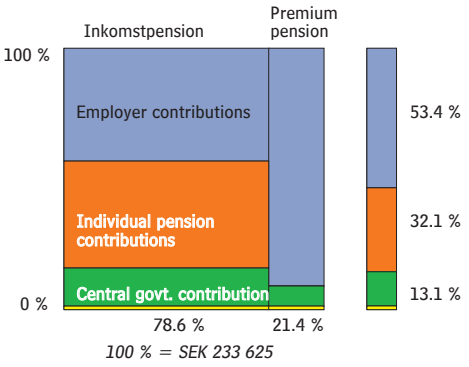
With conventional insurance, holdings are invested in various assets and reported at their true value.

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 represents a conservative assessment of the nominal rate of return for the period covered and has been set at 2.75 percent. Assumptions about life expectancy are based on the population forecasts of Statistics Sweden from 2003 in the low-mortality alternative.

Notes and Comments

Notes 2–14 relate to the inkomstpension, Notes 15–25 to the premium pension. Note 1 applies to both parts of the earnings-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 System

	Inkomstpension		Premium pension	
From:	2006	2005	2006	2005
Employer contributions below income ceiling	78 708	74 450	21 434	19 635
Self-employment contributions below income ceiling	2 488	2 255	675	595
Individual pension contributions	75 098	74 762	–	–
Central govt. old-age pension contribution	26 564	26 450	3 830	3 641
Final settlements etc.	766	1 635	24 062 *	–247
Total	183 624	179 552	50 001	23 624

* Because of changed procedures, the PPM reports two years of contributions for 2006

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, individual pension contributions 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. The following section provides a more detailed accounting for pension contributions.

More Detailed Accounting for Pension Contributions

Table A Pension Contributions by Type, 2006

Contributions to:	Inkomst-pension	Premium pension	Central govt. budget (tax)	Total	of which contributions to the national pension
Employer contributions	78 708	21 434	12 071	112 213	100 142
Self-employment contributions	2 488	675	383	3 546	3 163
Individual pension contributions	75 098	–	–	75 098	75 098
Central govt. old-age pension contributions	26 564	3 830	–	30 394	30 394
Total excl. settlements etc.*	182 858	25 939	12 454	221 251	208 797
Final settlements in 2006 for 2004	782	95	–877	0	877
Collection loss, settlement	–380	–	–	–380	–380
Discrepancies between SSIA accounting and the accounting of the National Pension Funds and the PPM, respectively	364	23 967	–	24 331	24 331
Total	183 624	50 001	11 577	245 202	233 625

* Contributions received by the SSIA in 2006 and transferred to the National Pension Funds, the premium pension system and the central government budget, respectively.

Table A shows pension contributions recorded in 2006. Some of these refer to previous years. Employer contributions, for example, are recorded at least one month after disbursement of the corresponding wages and salaries.

Individual pension contributions are allocated entirely to the National Pension Funds. For employer contributions and self-employment pension contributions, 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 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 part of income that exceeds the ceiling for pension-qualifying income. This ceiling is 8.07 income-related base amounts before deduction of the individual pension contribution and 7.5 after this deduction.[47] Since these contributions do not represent pension credit, they are in fact taxes.

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.

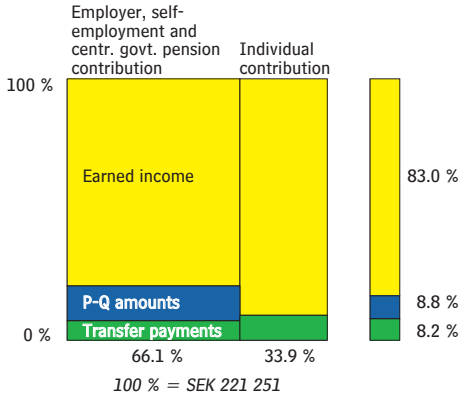
The discrepancy between the accounting of the Swedish Social Insurance Agency (SSIA) and that of the National Pension Funds (SEK 364 million) is due primarily to differences in regard to periodization. The considerable discrepancy between the accounting of the SSIA and that of the PPM (SEK 23 967 million) is explained largely by the fact that information from the Swedish National Tax Board and the SSIA was received by the PPM somewhat earlier. At the outset of 2006, contributions were transferred to the PPM for pension credit earned in 2004. In December 2006, contributions were transferred for pension credit earned in 2005. Since these transfers were made in December 2006 instead of early in 2007, two years of contributions were reported for the PPM in 2006. The accounts of the SSIA show contribution revenue received in 2006.

[47] The income-related base amount for 2006 is SEK 44 500. This base amount multiplied by 8.07 is SEK 359 115; multiplied by 7.5, it is SEK 333 750.

Table B Pension Contributions, Excluding Settlements etc. Allocated by Type of Contribution Base, 2006

	Employer, self-employment and centr. govt. pension contributions	Individual pension contributions	Total
Earned income*	115 759	67 938	183 697
Transfer payments, see Table C	10 894	7 160	18 054
Pension-qualifying amounts, see Table D	19 500	–	19 500
Total	146 153	75 098	221 251

The allocation of individual pension contributions among the different types of contribution base is estimated and is not shown in the accounting systems.
* Including sick-pay and self-employment income, excluding transfer payments.

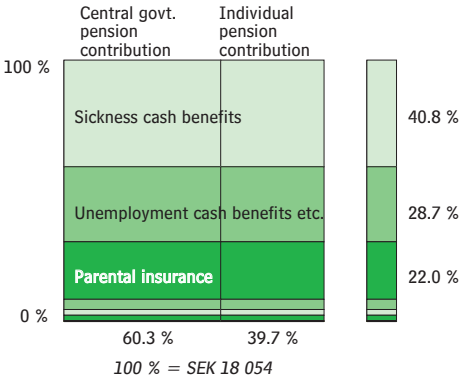


The individual pension contribution is 7 percent of the sum of earned income and pension-qualifying transfer payments such as sickness cash benefits, but not including sickness and activity compensation. The individual pension contribution is assessed only on the portion of such income below the ceiling 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 individual pension contribution, is 18.5 percent.

To obtain as correct an allocation as possible in Table B, only the "new" contributions received by the SSIA are included in the table.



Partial pensions are not included in the diagram.

Table C Pension Contributions for Transfer Payments, 2006

	Central govt. pension contrib.	Individual pension contrib.	Total
Sickness cash benefits	3 124	2 053	5 177
Rehabilitation benefits	237	156	393
Benefits to immediate relatives	8	5	13
Compensation for work-related injuries, etc.	424	278	702
Partial pension	0	0	0
Parental insurance	2 396	1 575	3 971
Care allowances	232	152	384
Unemployment cash benefits etc.	4 441	2 919	7 360
Educational allowances	27	18	45
Artists' Board	4	3	7
Allowances to disease carriers	1	1	2
Total	10 894	7 160	18 054

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

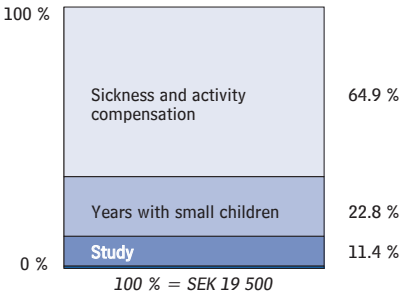


Table D Pension Contributions for Sickness/Activity Compensation and Pension Qualifying Amounts, 2006

Sickness and activity compensation*	12 655
Amounts credited for years with small children	4 452
Amounts credited for study**	2 221
Amounts credited for compulsory national service**	172
Total	19 500

* Amounts consist of both pension-qualifying benefits paid 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.

	2006	2005
ATP	165 971	162 563
Inkomstpension	10 161	6 507
Total pension disbursements	176 132	169 071
Transfers to the European Communities	24	57
Total	176 156	169 127

In 2006 a total of SEK 176 132 million in pensions was disbursed from the National Pension Funds, reducing the pension liability to retired persons by the same amount.

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 2006, the sum of SEK 24 million was transferred from the National Pension

Funds, thus reducing the pension liability to the economically active by this amount. In total, the National Pension Funds were charged with SEK 176 156 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	Other*	2006 Total	2005 Total
Stocks and shares	21 533	27 253	21 016	22 306	2 683	197	94 988	90 810
of which:								
Dividends received	*2 971*	*3 440*	*2 977*	*2 436*	*117*	*114*	*12 055*	*10 500*
Gain/loss, listed and unlisted stocks and shares, net	*18 562*	*23 813*	*18 039*	*19 870*	*2 566* **	*83*	*82 933*	*80 310*
Bonds and other interest-bearing securities	189	–469	847	–748	173	217	209	9 285
of which:								
net interest	*1 588*	*893*	*1 263*	*555*	*176*	*217*	*4 692*	*7 794*
Gain/loss, interest-bearing assets, net	*–1 399*	*–1 362*	*–416*	*–1 303*	*–3*	*0*	*–4 483*	*1 491*
Other investments	–3 271	–1 985	–3 012	–2 587	–461 **	0	–11 316	15 024
Costs of commissions	–132	–164	–154	–75	0	–1	–526	–521
Total	18 319	24 635	18 697	18 896	2 395	413	83 355	114 598

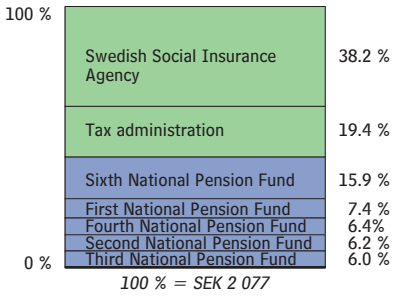
* Special administration of the First and Fourth National Pension Funds.
** These items have been decreased by SEK 3 million each on account of other financial expenses.
Sources: Annual Reports of the First, Second, Third, Fourth, and Sixth National Pension Funds for 2005 and 2006.

The presentation in Note 3 has been adapted to the income statements of the National Pension Funds as from 2006. Consequently, new figures for comparison are shown for 2005 as well.

For all National Pension Funds, the direct return in 2006 was SEK 12 055 (10 500), 5 615 (10 625) and –7 041 (–1 959) million for the respective items of stocks and shares, bonds and other interest-bearing securities and other investments. Other investments consist of derivatives. 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 section Costs of the Old-Age Pension System).

Note 4 Costs of Administration

	2006	2005
Swedish Social Insurance Agency	794	895
Tax administration (incl. Enforcement Service)	403	279
National Institute of Economic Research	0	0
Total costs, insurance administration	1 197	1 174
First National Pension Fund	153	145
Second National Pension Fund	129	123
Third National Pension Fund	125	127
Fourth National Pension Fund	133	133
Sixth National Pension Fund	331	326
First and Fourth National Pension Funds, special administration	9	4
Total costs, fund administration	880	858
Total	2 077	2 032



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). Result-based charges, brokerage fees etc. have reduced the return shown in Note 3 (see the section Costs of the Old-Age Pension System).

Because of phase-in provisions applicable until 2020, only a portion of administrative costs (70 percent for 2006; see Note 11) are charged to the pension balances of the insured. Each fund finances its own administrative costs by withdrawals from itself.

Note 5 Value of Change in Contribution Revenue

	2006	2005
Smoothed contribution revenue 2006	185 491	–
Smoothed contribution revenue 2005	–178 116	178 116
Smoothed contribution revenue 2004	–	–173 049
Change in smoothed contribution revenue	7 375	5 067
(Smoothed turnover duration 2006 + smoothed turnover duration 2005)/2	x 32.08292	–
(Smoothed turnover duration 2005 + smoothed turnover duration 2004)/2	–	x 32.25829
Value of change in contribution revenue	236 612	163 453

Duration in years.

Table A Basis for Calculating Smoothed Value of Contribution Revenue

	2006	2005	2004	2003
Pension contributions	183 624	179 552	171 600	165 107
Contribution deficit attributable to contributions and contribution base not phased in.	–	–	1 500	2 600
Basis for calculation	183 624	179 552	173 100	167 707
Smoothed contribution revenue	185 491	178 116	173 049	168 681
CPI, June	284.68	280.45	278.91	277.74

During a phase-in period extending through fiscal year 2004, adjustments were made so that the contribution used in calculating the contribution asset would reflect the contribution revenue level when the system is fully functioning. The method of calculating smoothed contribution revenue is described in Appendix B, Section 1.

Note 6 Value of Change in Turnover Duration

	2006	2005
Smoothed turnover duration 2006	32.04812	–
Smoothed turnover duration 2005	–32.11771	32.11771
Smoothed turnover duration 2004	–	–32.39887
Change in smoothed turnover duration	–0.06959	–0.28116
(Smoothed contribution revenue 2006 + smoothed contribution revenue 2005)/2	x 181 803	–
(Smoothed contribution revenue 2005 + smoothed contribution revenue 2004)/2	–	x 175 582
Value of change in turnover duration	–12 652	–49 367

Duration in years.

Table A Basis for Calculating Smoothed Turnover Duration

	2006	2005	2004
Pay-in duration	21.26565	21.46187	21.54817
Pay-out duration	10.66803	10.58625	10.56954
Turnover duration	31.93368	32.04812	32.11771
Smoothed turnover duration	32.04812	32.11771	32.39887

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 estimates for 2006 are based on the value of pension credit earned in 2005 (and confirmed in 2006). Pay-out duration is calculated from the data through December 2006.

Note 7 New Pension Credit and ATP Points

	2006	2005
Estimated inkomstpension credit earned in 2006	168 238	157 547
Estimated value of ATP points	5 382	6 182
Adjustment amount, new pension credit, see Table A	2 024	355
Adjustment amount, new ATP points, see Table B	15 524	25 472
Total	191 168	189 556

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.

Table A Adjustment Amount, New Pension Credit, 2006

Confirmed inkomstpension credit earned in 2005	157 262
Estimated inkomstpension credit earned in 2005	–157 547
Adjustments affecting pension balances, etc.	–255
Change in disbursements made	2 564
Total	2 024

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 2005, the pension credit earned during the year was estimated at SEK 157 547 million. After the tax assessment for 2005 had been finalized, the actual value proved to be SEK 157 262 million.

The adjustment amount of SEK –255 million represents primarily tax-assessment changes and other adjustments affecting the size of pension balances; see Note 14, Table A. The pension liability to retirees has been changed by SEK 2 564 million because of changes in pension disbursements other than indexation (see Note 14, Table C).

Table B Adjustment Amount, New ATP Points, 2006

Effect of difference between assumed value for 2006 and estimate for 2005, etc.	–5 649
Value of other paid-in pension contributions for ATP*	12 399
Change in amounts disbursed	8 774
Total	15 524

* Excluding value of ATP points.

The ATP liability to the economically active – that is, to individuals who have not yet begun drawing a pension – is estimated in the pension model of the SSIA. The procedure is described in Note 14.

The ATP liability to retirees has been changed by SEK 8 774 million because of changes in pension amounts other than indexation (see Note 14, Table C).

Of the ATP points earned in 2006, only a minor portion will have any significant impact on future pensions. The portion expected to contribute to higher pensions has been reported as the estimated value of ATP points earned (SEK 5 382). However, all contributions to the ATP add to the esti-

mated pension liability. The last year for which ATP points may be earned is 2017. This means that pension contributions, except for administrative discrepancies, will not equal pension credit earned until 2018.[48]

Note 8 Indexation

	2006			2005		
	Active	Retired	Total	Active	Retired	Total
Inkomstpension	113 439	3 178	116 617	91 285	1 659	92 944
ATP	32 608	44 947	77 555	30 519	38 346	68 865
Total	146 047	48 125	194 172	121 804	40 005	161 809

The pension liability grows by the increase in the income index.[49] The value of indexation refers to the indexation affecting the pension liability as of December 31, 2006. The pension liability to the economically active as of December 31, 2006, has earned a return equal to the change in the income index, 3.2 percent, between 2006 and 2007. The pension liability to retirees as of the same date has earned a return equal to the change in the income index at the end of the previous year, i.e. 2005, which was 2.7 percent.

Note 9 Value of the Change in Life Expectancy

	2006			2005		
	Active	Retired	Total	Active	Retired	Total
Inkomstpension	–	2 027	2 027	–	1 216	1 216
ATP	11 255	19 482	30 737	11 861	23 442	35 303
Total	11 255	21 509	32 764	11 861	24 658	36 519

As used here, the term "life expectancy" refers to the assumed payout duration of an average pension, or so-called economic life expectancy, adjusted for the norm of 1.6 percent. Economic life expectancy is expressed as an economic annuity divisor. 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 effect 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

	2006		2005	
Age	Inheritance gains arising	Inheritance gains distributed	Inheritance gains arising	Inheritance gains distributed
60 or older	3 449	4 221	2 898	3 537
Below 60	6 041	5 961	5 956	5 710
Total	9 490	10 182	8 854	9 246

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 by an inheritance gain factor.

[48] Contributions related to the ATP totalled SEK 17.8 billion in 2006, whereas the value of new ATP points for that year was only SEK 5.4 billion. Thus, contributions exceeded the value of ATP points earned by SEK 12.4 billion. The difference is explained by the fact 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 at all, even if they continue to work and to pay 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.

[49] For individuals born no later than in 1953 and drawing an ATP before age 65, the pension liability is indexed by the change in the price-related base amount until they turn 65.

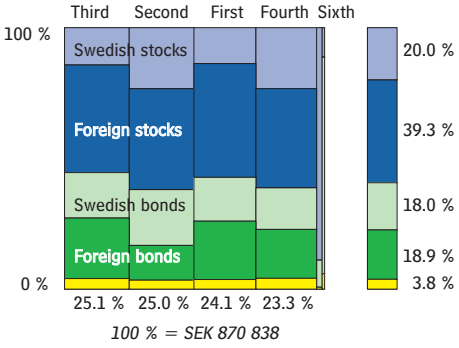
Until the year when a birth cohort reaches age 60, the inheritance gains distributed are those actually arising. The inheritance gain factor is thus determined by the total pension balances of decedent persons of the same age. The inheritance gains from persons dying in 2005 before reaching age 60 (born in 1946 or later) were distributed to the respective birth cohorts in 2006. The difference between inheritance gains arising and inheritance gains distributed is explainable by the annual adjustment of pension balances for changes in tax assessments, among other reasons.

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, the Swedish Central Office of Statistics, for an earlier period. Because this mortality will not be exactly the same as actual mortality in the year concerned, as well as for other reasons, there will be a discrepancy between inheritance gains arising and inheritance gains distributed. For those dying at age 60 or above in 2006 (born in 1938–1946), 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 step by step. In 2006, 70 percent of administrative costs were financed by a deduction from pension balances. This deduction will increase by two 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 the costs 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 value 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 2006 was 0.0312 percent and totalled SEK 1 130 (1 738) million.



The diagram shows the assets of the National Pension Funds.

Note 12 Fund Assets

National Pension Fund:	First	Second	Third	Fourth	Sixth	Other*	2006 Total	2005 Total
Stocks and shares	120 309	134 907	120 964	124 531	15 340	466	516 517	474 241
of which: Swedish	*28 862*	*50 839*	*31 116*	*47 415*	*15 340*	*466*	*174 038*	*159 061*
foreign	*91 447*	*84 068*	*89 848*	*77 116*	*0*	*0*	*342 479*	*315 180*
Bonds and other interest-bearing assets	82 106	75 442	88 446	70 389	1 791	3 423	321 597	286 673
of which: Swedish issuers	*35 213*	*46 479*	*37 922*	*32 351*	*1 791*	*3 423*	*157 179*	*134 883*
foreign issuers	*46 893*	*28 963*	*50 524*	*38 038*	*0*	*0*	*164 418*	*151 790*
Other assets	7 709	7 439	8 813	8 396	123	244	32 724	19 106
Total assets	210 124	217 788	218 223	203 316	17 254	4 133	870 838	780 020
Liabilities	–3 019	–1 013	–6 025	–2 779	–64	–1	–12 901	–10 830
Total	207 105	216 775	212 198	200 537	17 190	4 132	857 937	769 190

* Special administration of the First and Fourth National Pension Funds.

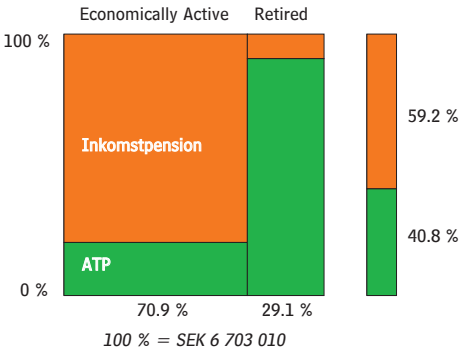
Other assets include derivatives, cash and bank balances, prepaid expenses and accrued revenue etc. Liabilities consist of derivative instruments, other liabilities, prepaid revenue and accrued expenses.

Note 13 Contribution Asset

	2006	2005
Smoothed contribution revenue	185 491	178 116
Smoothed turnover duration	x 32.04812	x 32.11771
Contribution asset	5 944 638	5 720 678

Time in years.

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



Note 14 Pension Liability

	2006			2005		
	Active	Retired	Total	Active	Retired	Total
Inkomstpension	3 786 941	182 574	3 969 515	3 570 838	120 370	3 691 208
ATP	963 808	1 769 687	2 733 495	1 042 121	1 728 147	2 770 268
Total	4 750 749	1 952 261	6 703 010	4 612 959	1 848 517	6 461 476

The pension liability to retirees is calculated in the same manner for the ATP and the inkomstpension. The first step is to total the pension disbursements to each birth cohort in December and to multiply this total by 12 to obtain a theoretical annual amount. The annual amount is thereafter multiplied by the economic life expectancy for each birth cohort, resulting in the pension liability to that cohort. The pension liabilities to all birth cohorts are then summed up. Economic life expectancy 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, 2006, with the addition of the estimated pension credit earned in 2006. 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. That liability is estimated in the SSIA pension model. The calculation is made for the birth cohorts whose pensions will be calculated partly by the rules of the ATP system (those born no later than 1953) and who have not reached age 65.

In order to determine the ATP liability, an estimate is made of the ATP of the respective birth cohorts in the year when they reach 65. The estimated annual amount for each cohort is multiplied by the economic annuity divisor for 65-year-olds in the year concerned. To obtain the present value of the estimated pension liability, the liability is reduced by the cohort'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 income index will increase by 2 percent annually. The ATP liability to the economically active will gradually diminish and will in principle be gone entirely by 2018.

Table A **Analysis of the Change in Inkomstpension Liability to the Economically Active, 2006**

Inkomstpension liability to the economically active, Dec. 31, 2005	3 570 838
of which estimated inkomstpension credit earned in 2005	–157 547
Pension balance, December 31, 2005	3 413 291
Inheritance gains arising from persons dying before age 60*	–6 041
Adjustments affecting pension balances**	137
Opening pension balance, 2006	3 407 387
Changes in tax assessments etc. affecting pension balances	–392
Confirmed inkomstpension credit earned in 2005	157 262
Distributed inheritance gains from persons dying at or after age 60	4 221
Inheritance gains arising from persons dying before age 60	5 961
Indexation	113 439
Deduction for administrative costs	–1 130
Pensions drawn	–64 866
Pensions revoked	270
Inheritance gains arising, persons dying at or after age 60	–3 449
Pension balances as of December 31, 2006	3 618 703
Estimated inkomstpension credit earned in 2006	168 238
Inkomstpension liability to the economically active as of Dec. 31, 2006	3 786 941

* Distributed in 2006.

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

Table B **Analysis of Change in ATP Liability to the Economically Active, 2006**

ATP liability to the economically active, December 31, 2005	1 042 121
Effect of difference between assumption for 2006 and estimate in 2005 etc.	–5 649
Opening ATP liability, 2006	1 036 472
Indexation	32 608
Estimated value of ATP points earned in 2006	5 382
Pensions drawn	–134 308
Value of other paid-in contributions for the ATP	12 399
Effect of change in life expectancy	11 255
ATP liability to the economically active, December 31, 2006	963 808

Table C **Analysis of Change in Pension Liability to Retirees, ATP and Inkomstpension, 2006**

	Inkomst-pension	ATP pension	Total
Pension liability to retirees, Dec. 31, 2005	120 370	1 728 147	1 848 517
Additional liability to the economically active	64 596 *	134 308 **	199 180
Change in amounts disbursed	2 564	8 774	11 062
Pensions disbursed ***	–10 161	–165 971	–176 132
Indexation	3 178	44 947	48 125
Value of change in life expectancy	2 027	19 482	21 509
Pension liability to retirees, December 31, 2006	182 574	1 769 687	1 952 261

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

** See Table B.

*** See Note 2.

The liability to retirees is increased by indexation and a higher life expectancy, and it is decreased by the 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 are reported as changes in disbursements. 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

	2006	2005
Pension disbursements from fund insurance	206	94
Pension disbursements from conventional insurance	25	10
Total pension disbursements	231	104
Transferred to the European Communities	1	1
Total	232	105

One option for a pension saver at the time of retirement is to retain her/his accumulated balance in fund insurance; the amount of the pension will then depend on the change in the value 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, which includes a guaranteed return that is presently 2.75 percent. If PPM management of 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. Such supplements totaled 0.7 (0.2) in 2006.

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 2006, the sum of SEK 1 million was transferred from the premium pension system.

Note 16 Return on Funded Capital

	Fund insurance	Conventional insurance	2006 Total	2005 Total
Stocks and shares	28 210	45	28 255	43 895
of which: direct return	*2 510*	*18*	*2 528*	*1 938*
realized and unrealized capital gains	*25 700*	*27*	*25 727*	*41 957*
Bonds and other interest-bearing securities	–58	–12	–70	47
of which: direct return (net interest)	*8*	*0*	*8*	*5*
realized and unrealized capital gains	*–66*	*–12*	*–78*	*42*
Net foreign-exchange gain/-loss	–1 213	–	–1 213	834
Subtotal, return	26 939	33	26 972	44 776
Change, conventional insurance	–	15	15	9
Total	26 939	48	26 987	44 785

The return earned includes realized and unrealized foreign-exchange gains and losses after deduction of fund management charges. The average fund management charge after deduction of rebates is 0.40 percent of average capital.

Note 17 Costs of Administration

	2006	2005
Operating expenses	289	250
Financial items, net	40	37
Total	329	287

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 PPM costs of administration. Total costs of administration in 2006 were SEK 335 million, of which 6 million are included in Note 16 as change, conventional insurance. A presentation of the respective gross and net reported costs of the pension system is provide in the section Costs of the Old-Age Pension system.

Note 18 New Pension Credit

	2006	2005
Confirmed premium pension credit earned in 2003	–	23 624
Confirmed premium pension credit earned in 2004	24 829	–
Confirmed premium pension credit earned in 2005	25 172	–
Total	50 001	23 624

In the premium pension system, the equivalent of contribution revenue is new pension credit, including interest for the period when contribution moneys are managed by the PPM before being invested in the funds chosen by the insured. The amount also includes changes in positive pension credit from previous pay-in years and distributed rebates of fund management fees. For 2006 the investment of new pension credit for both new and existing pension savers has been timed to coincide as closely as possible with the final taxation decision. This means that the pension credit for 2006 includes confirmed pension credit for two pay-in years, 2004 and 2005.

Note 19 Change in Value

The pension liability was changed by the return on premium pension funds, SEK 26 972 (44 776) million in total; 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 2006 inheritance gains distributed were SEK 375 (296) million; this amount was determined by the sum of the capital released because of deaths in calendar year 2005, i.e., the inheritance gains of SEK 375 (296) arising that year. This item also includes the reductions in premium pension credit when premium pension is transferred between spouses. In calendar year 2005, a total of 7 116 persons transferred an aggregate of SEK 40 million between spouses or between registered partners.

Note 21 Deduction for Costs of Administration

The amount of SEK 370 (335) is for fees withdrawn by the Premium Pension Authority (PPM) to finance its costs of administration. The fee for 2006 was 0.16 of the account balances of pension savers. During the build-up phase and until 2018, the PPM will be financed by a combination of fees withdrawn and interest-bearing overdrafts for working capital needs as well as by borrowing within authorized limits from the National Debt Office. The fee charged was based on the cost level forecast for 2006.

Note 22 Insurance Assets

	Fund insurance	Conventional insurance	2006 Total	2005 Total
Stocks and shares	259 871	201	260 072	187 149
Bonds and other interest-bearing securities	8 066	538	8 604	5 515
Trade in progress and inheritance gains arising	771	–	771	413
Total	268 708	739	269 447	193 077

Inheritance gains arising for 2006 total SEK 538 (373) million, of which fund insurance accounts for SEK 534 (371) million and conventional insurance for SEK 4 (2) million, and will be distributed to pension savers in 2007. As of December 31, 2006, the number of pension savers totalled 5 689 608, of whom 5 648 799 had invested their savings in fund insurance and 40 809 in conventional insurance. The number of pension savers receiving premium pension disbursements was 343 473.

Note 23 Other Assets

	2006	2005
Temporarily managed preliminary contributions	24 521	46 482
PPM's administrative inventory of fund shares (trading inventory)	85	40
Other assets	1 350	888
Total	25 956	47 410

The temporary management of preliminary contributions is for pay-in year 2006. In January 2006 and December 2006 contribution moneys for pay-in years 2004 and 2005 were invested.

The PPM'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 include intangible assets, cash and bank balances, receivables, prepaid expenses and accrued revenue, as well as fixtures and other long-term assets.

Note 24 Pension Liability

	2006	2005
Pension liability, fund insurance	268 708	192 770
Pension liability, conventional life insurance	739	307
Total	269 447	193 077

The pension liability is a liability to economically active and 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 life 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, 2006

Pension liability, fund insurance, December 31, 2005	192 770
Tax assessment changes etc. affecting premium pension capital	–1
Confirmed premium pension credit earned in 2004 and 2005	49 576
Inheritance gains distributed*	–373
Change in value	26 939
Deduction for costs of administration	–369
Decrease in liability because of pensions withdrawn, 2006	–206
Inheritance gains arising	373
Premium pension capital as of December 31, 2006	268 709
Adjustment affecting premium pension capital **	–1
Pension liability, fund insurance, December 31, 2006	268 708

* Inheritance gains, capital released in 2005, distributed in 2006.
** Transfers to the European Communities, etc.

Table B Analysis of the Change in Pension Liability, Conventional Insurance, 2006

Pension liability, conventional insurance, December 31, 2005	307
Tax assessment changes etc. affecting premium pension capital	0
Confirmed premium pension credit earned in 2004 and 2005	425
Inheritance gains distributed*	–2
Change in value	33
Deduction for costs of administration	–1
Decrease in liability because of pensions withdrawn, 2006	–25
Inheritance gains arising	2
Premium pension capital as of December 31, 2006	739
Pension liability, conventional insurance, December 31, 2006	739

* Inheritance gains, capital released in 2005, distributed in 2006.

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

Note 25 Other Liabilities

	2006	2005
Liability relating to preliminary contributions	24 520	46 482
Other liabilities	3 001	2 550
Total	27 521	49 032

Liabilities relating to preliminary contributions consist of unconfirmed pension credit for pay-in year 2006 and correspond to the assets invested under temporary management; see Note 23.

Other liabilities consist of fund trading in progress, accounts payable to suppliers, borrowings from the National Debt Office, accrued management fees, accrued expenses and prepaid revenue.

BDO BDO Nordic AB

AUDIT REPORT

on the

ANNUAL REPORT OF THE SWEDISH PENSION SYSTEM

To the Swedish Social Insurance Agency:

We have audited the Annual Report of the Swedish Pension System for 2006. In accordance with the Regulations on Annual Reporting of the Financial Position and Development of the Earnings Related Old Age Pension System (2002:135), the Swedish Social Insurance Agency is obligated to provide this Annual Report. The Director General of the Swedish Social Insurance Agency is responsible for preparing the Annual Report and for its conformity with the Earnings Related Old Age Pension Act (1998:674). Our responsibility is to express an opinion on the Annual Report based on our audit.

We conducted our audit in accordance with generally accepted auditing standards in Sweden. Those standards require that we plan and perform the audit so as to establish with reasonable certainty that the Annual Report is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Annual Report. It is also part of an audit to assess the accounting principles used and their application by the Director General as well as significant estimates made by the Director General when preparing the Annual Report, and to evaluate the overall presentation of the Annual Report.

In addition to the principles applied and the calculations made in the preparation of the Annual Report, our audit covers the income statements and balance sheets of the inkomstpension, premium pension and earnings-related old-age pension systems as well as notes and comments, accounting principles and other explanatory information. Our audit has not involved reviewing the principles of the national public pension or reviewing projections or other information outside the scope of our audit.

We believe that our audit provides a reasonable basis for our opinion set out below:

The Annual Report has been prepared in accordance with the Earnings Related Old Age Pension Act (1998:674), the Regulations on Annual Reporting of the Financial Position and Development of the Earnings Related Old Age Pension System (2002:135) and otherwise in accordance with what is described in the Annual Report under the heading of Accounting Principles. The balance ratio shown in the Annual Report has been calculated in accordance with the Regulations for Calculation of the Balance Ratio (2002:780).

Stockholm, 14th March 2007

Ulf H Davéus
Authorized Public Accountant

Ove Olsson
Authorized Public Accountant

Appendix A. Calculation Factors*

* For amounts and values, see Press/Aktuella belopp at www.forsakringskassan.se and at www.ppm.nu.

The Earnings Related Old Age Pension Act, or LIP, (1998:674), requires the Swedish Social Insurance Agency to calculate the income index. In addition, the Agency is required 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 the LIP, the PPM is to operate on the same principles as insurance businesses. These principles, as interpreted by the PPM, govern the calculation of the rebate rate, inheritance gains and annuity divisors for the premium pension. Further, the PPM is to calculate the fee that will finance its 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.

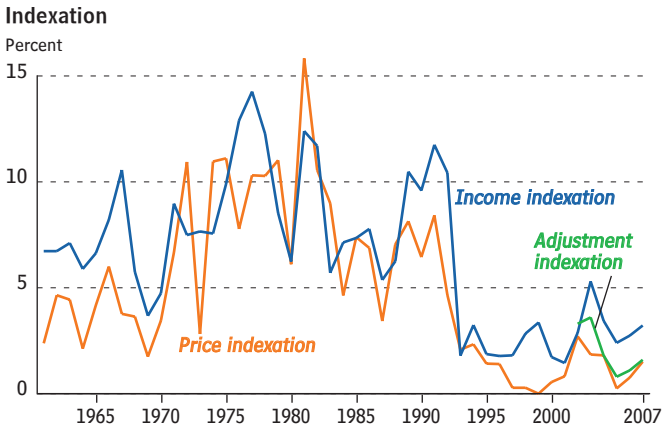
$$Income\ Index(t) = \left(\frac{u(t-1)}{u(t-4)} \times \frac{CPI(t-4)}{CPI(t-1)}\right)^{1/3} \times \frac{CPI(t-1)}{CPI(t-2)} \times k \times Income\ Index(t-1)$$

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

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 during the latest three-year period, excluding inflation; the second is inflation during 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. The purpose of excluding the inflation for the three-year period and restoring the inflation for the most recent year is to ensure rapid adjustment of pensions to changes in the inflation rate.



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

Balancing is activated if the balance ratio drops below 1.0000. Then the balance index is used instead of the income index.

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

$$\textit{Balance index}(t+1) = \textit{Balance index}(t) \times \left(I(t+1) \,/\, I(t)\right) \times BR(t+1) = I(t+1) \times BR(t) \times BR(t+1)$$

where
$I(t)$ = income index, year t
$BR(t)$ = balance ratio, year t

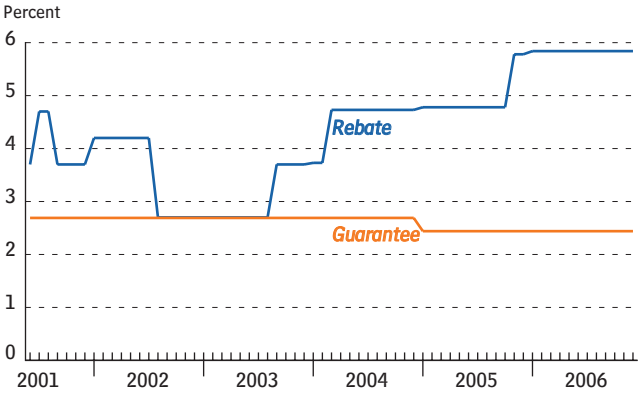
At the end of year t-1, indexation takes place via multiplication of pensions by the ratio between the balance index for year t and the income index for year t-1 divided by 1.016, and of pension balances by the ratio between the balance index for year t and the income index for year t-1. At the end of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

Rate of Rebate

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 operation achieves a better result than was assumed when the guaranteed amount was calculated. The result of the conventional insurance operation is reflected in the rate of rebate used to increase the value of conventional insurance.

The rate of rebate 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.

$$Inheritance\ Gain\ Factor_i(t) = 1 + \frac{\sum_{i=2}^{i=17} PBd_{i-1}(t-1)}{\sum_{i=2}^{i=17} PB_{i-1}(t-1)} \qquad \text{for } i = 2, 3, \ldots 17$$

$$Inheritance\ Gain\ Factor_i(t) = 1 + \frac{PBd_{i-1}(t-1)}{PB_{i-1}(t-1)} \qquad \text{for } i = 18, 19, \ldots 60$$

$$Inheritance\ Gain\ Factor_i(t) = \frac{L^*_i(t)}{L_i(t)} \qquad \text{for } i = 60, 61, \ldots r$$

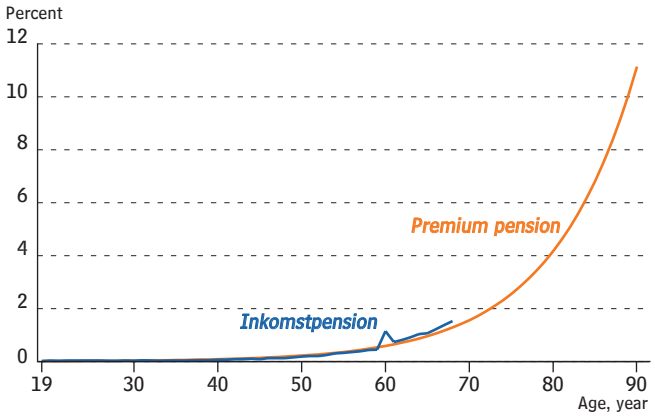
where

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 $i-1$
r	=	oldest age group in which $L_i > 0$
$L_i(t)$	=	number of survivors out of 100 000 born in age group i at the end of year t 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
$L^*_i(t)$	=	number of survivors out of 100 000 born in age group i at the start of year t 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 the 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.

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 gains factors are applied to different bases.

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 an effect on the inkomstpension liability to the economically active, however, 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 changes in taxation 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 fact that for each gender persons with low incomes have shorter life spans, on average, than 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 last surviving party, whether the primary insured or the co-insured, will die within one year.

The risk of death in year t is calculated by Makeham's formula (see page 78). 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 balance of the premium pension account as of December 31 in year t–1. The amounts of the inheritance gains are adjusted by a factor that equalizes the total amount distributed in year t and the capital of pension savers dying in year t–1.

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

Administrative Cost Factor, Inkomstpension

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

$$\textit{Administrative cost factor}(t) = 1 - \left[(B(t) \times A(t) - C(t-1) + F(t-1) \times A(t-1)) \,/\, PB(t-1)\right]$$

where

$B(t)$ = budgeted costs of administration, year t
$A(t)$ = proportion charged to pension balances, year t
$C(t-1)$ = amount of reduction in pension balances, year t–1
$F(t-1)$ = actual costs of administration, 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 amount of the adjustment is the difference between actual administrative costs in $t-1$ and the deduction 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.

Deduction 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 reason for this limitation is to avoid charging the currently insured with disproportionately high fees for the build-up of the PPM when their pension balances are modest in amount. The fee, which is deducted from premium pension accounts once a year, is to cover the total operating costs of the PPM, 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.

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

where

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

X = 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 later on.

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. With the continuing increase in life expectancy, the recalculated annuity divisors have so far been higher than before, resulting in lower monthly pensions. The consequent marginal reduction 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 implies a 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 from the difference between annuity divisors and so-designated "economic annuity divisors" in this report. For a description of economic annu-

ity 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

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.

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

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

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

where

x = exact age at time of retirement

The annuity divisors are calculated continually and according to the exact age at retirement, but in principle they are consistent with the formula for the annuity divisor for the inkomstpension.[50] 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 2003–2050 for individuals born in 1940, according to the low-mortality alternative.[51]

The interest credited, δ, is currently 3 percent before the deduction for costs and 2.69 percent after that deduction. The reason for the deduction is to cover the costs of the PPM. If the premium pension is drawn in the form of conventional insurance, the guaranteed amount is calculated with an assumed nominal return that is currently 2.44 percent after the deduction for costs (equivalent to 2.75 percent before the deduction). The assumptions above regarding interest have also been used in the calculation of actuarial provisions (FTA).

For the premium pension in the form of fund insurance, the pension liability is by definition equal to the value of the assets, which in turn corresponds to the aggregate 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). The liability is calculated by multiplying every guaranteed amount by an annuity divisor. The annuity divisor is calculated in the same manner as in the determination of pension amounts. In the calculation of FTA, however, separate mortality assumptions are used for women and men, respectively. A reduction in assumed mortality or in interest will increase the FTA.

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

[51] Persons born in 1940 constitute the birth cohort closest to age 65 at the time of the latest determination of the forecast interest rate. Current values: a=0.0025, b=0.0000075, c=0.105, δ=2.6559 percent, equivalent to an annual interest rate of 2.6915 percent. For x>97, μ(x) merges with a straight line with a slope of 0.001.

Annuity Divisors for Annual Amount (Fund Insurance)

Without survivor benefit

Age									
61	62	63	64	65 66	67	68	69	70	
17.56	17.14	16.73	16.30	15.88	15.45	15.01	14.57	14.13	13.69

With survivor benefit

Age, co-insured	Age, primary insured									
	61	62	63	64	65	66	67	68	69	70
55	22.10	21.96	21.83	21.70	21.57	21.46	21.35	21.24	21.14	21.05
60	21.01	20.82	20.64	20.46	20.30	20.13	19.98	19.84	19.70	19.57
65	20.05	19.81	19.58	19.35	19.14	18.92	18.72	18.53	18.34	18.16
70	19.28	18.99	18.71	18.43	18.16	17.89	17.63	17.38	17.14	16.91

Annuity Divisors for Guaranteed Annual Amount (Conventional Insurance)

Without survivor benefit

Age									
61	62	63	64	65	66	67	68	69	70
18.62	18.18	17.74	17.30	16.85	16.39	15.94	15.48	15.02	14.56

With survivor benefit

Age, co-insured	Age, primary insured									
	61	62	63	64	65	66	67	68	69	70
55	23.42	23.27	23.13	22.99	22.86	22.74	22.62	22.51	22.41	22.31
60	22.26	22.06	21.87	21.68	21.51	21.34	21.18	21.02	20.88	20.74
65	21.25	21.00	20.75	20.51	20.28	20.06	19.85	19.64	19.45	19.26
70	20.44	20.13	19.84	19.55	19.26	18.98	18.71	18.45	18.19	17.95

Appendix B.
Mathematical Description of the Balance Ratio

* Some editing has been done to simplify the presentation

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

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

1. Balance ratio, *BR*,

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

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

$$\overline{C}(t) = \frac{C(t) + C(t-1) + C(t-2)}{3} \times \left(\frac{C(t)}{C(t-3)} \times \frac{CPI(t-3)}{CPI(t)} \right)^{1/3} \times \left(\frac{CPI(t)}{CPI(t-1)} \right) \tag{1.2}$$

$$\overline{T}(t) = median \left[T(t), T(t-1), T(t-2) \right] \tag{1.3}$$

where

t = calendar year if the variable refers to flows, end of calendar year if the variable refers to stocks, confirmation year (income year + 1)
$CA(t)$ = 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.
$S(t)$ = pension liability, year t
$\overline{C}(t)$ = smoothed contribution revenue to the pay-as-you-go system, year t
$\overline{T}(t)$ = smoothed turnover duration, year t
$C(t)$ = contributions to the pay-as-you-go system, year t
$T(t)$ = turnover duration, year t
$CPI(t)$ = consumer-price index for June, year t

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

$$\overline{R}(t) = \frac{\sum_{i=61}^{R^*(t)} P^*_i(t) \times G_i(t) \times i}{\sum_{i=61}^{R^*(t)} P^*_i(t) \times G_i(t)}, \ \overline{R} \text{ rounded off to nearest whole number} \tag{2.0}$$

where

i = age at end of year t
$R^*(t)$ = 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*,

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

3.1 Pay-in duration, *ID*,

$$ID(t) = \frac{\sum_{i=17}^{\overline{R}(t)} \overline{E}_i(t) \times L_i(t) \times \left(\overline{R}(t) - i + 0.5\right)}{\sum_{i=17}^{\overline{R}(t)} \overline{E}_i(t) \times L_i(t)} \tag{3.1.1}$$

$$\overline{E}_i(t) = \frac{\frac{E_i(t)}{N_i(t)} + \frac{E_{i+1}(t)}{N_{i+1}(t)}}{2} \quad \text{for } i = 17, 18, \ldots, \overline{R}(t)-1 \tag{3.1.2}$$

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

$$L_i(t) = L_{i-1}(t) \times h_i(t) \text{ for } i = 18, 19, \ldots, \overline{R}(t) \text{ where } L_{17}(t) = 1 \tag{3.1.4}$$

$$h_i(t) = \frac{N_i(t)}{N_{i-1}(t-1)} \quad \text{for } i = 18, 19, \ldots, \overline{R}(t) \tag{3.1.5}$$

where

$E_i(t)$ = the sum of 16% of pension qualifying-income calculated in accordance with Ch. 2 of the Earnings Related Old Age Pension Act (1998:674) and 16% of the imputed pension-qualifying income calculated in accordance with Ch. 3 of said act in pay-in year t–1, *i*.e. confirmation year t, age group i for individuals who have not been registered as deceased in year t–1

$N_i(t)$ = number of individuals in age group i who at any time through pay-in-year t–1, i.e. confirmation year t, have been credited with pension-qualifying income or pension-qualifying amounts and have not been registered as deceased in year t–1

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

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

3.2 Pay-out duration, *OD*,

$$OD(t) = \frac{\sum_{i=\bar{R}(t)}^{R(t)} 1.016^{-(i-\bar{R}(t)+0.5)} \times L^*_i(t) \times \left(i-\bar{R}(t)+0.5\right)}{\sum_{i=\bar{R}(t)}^{R(t)} 1.016^{-(i-\bar{R}(t)+0.5)} \times L^*_i(t)} \tag{3.2.1}$$

$$L^*_i(t) = L^*_{i-1}(t) \times he_i(t) \text{ where } L^*_{60}(t) = 1 \tag{3.2.2}$$

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

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*,

$$D(t) = AD(t) + DD(t) \tag{4.0}$$

$$AD(t) = K(t) + E(t) + ATP(t) \tag{4.1}$$

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

$$Ge_i(t) = \frac{\sum_{j=i}^{R(t)} \frac{1}{2} \times \left(L^*_j(t) + L^*_{j-1}(t)\right) \times 1.016^{\,i-j-1}}{L^*_i(t)} \quad \text{for } i = 61, 62, ..., R(t) \tag{4.3}$$

where

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

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

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

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

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

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

List of Terms

* For amounts and values, see Press/Aktuella belopp at www.forsakringskassan.se and at www.ppm.nu.

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, 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) = $[I(t)/I(t\text{-}1)]$ /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 — tilläggspension

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.

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.

deduction for costs of administration* förvaltningskostnadsavdrag

pension balances are reduced by the administrative costs of the inkomstpension and ATP systems. This is done via percentage deduction of a cost-of-administration factor from pension balances. For the premium pension, the deduction for costs of administration is made as a percentage reduction in the premium pension capital of the insured (see Appendix A).

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 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 earnings-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 on 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 according to the income index (or the balance index), inheritance gains and 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:

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

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 only granted on income up to the ceiling on pension-qualifying income.

premium pension premiepension

the portion of the earnings-related old-age pension designed as a funded system. The pension credit earned for the premium pension is 2.5 percent of the pension base and is invested in securities funds chosen by the insured individual. The premium pension may be withdrawn as fund insurance or as a guaranteed nominal monthly benefit from a conventional insurance policy. Like the inkomst-pension 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 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). There is also 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.

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Further information on social security in Sweden is available on the SSIA website www.forsakringskassan.se.
Information on the premium pension system can be found at www.ppm.nu.

För information on the National Pension Funds, please see the websites of each fund:
www.ap1.se, www.ap2.se, www.ap3.se, www.ap4.se and www.ap6.se.

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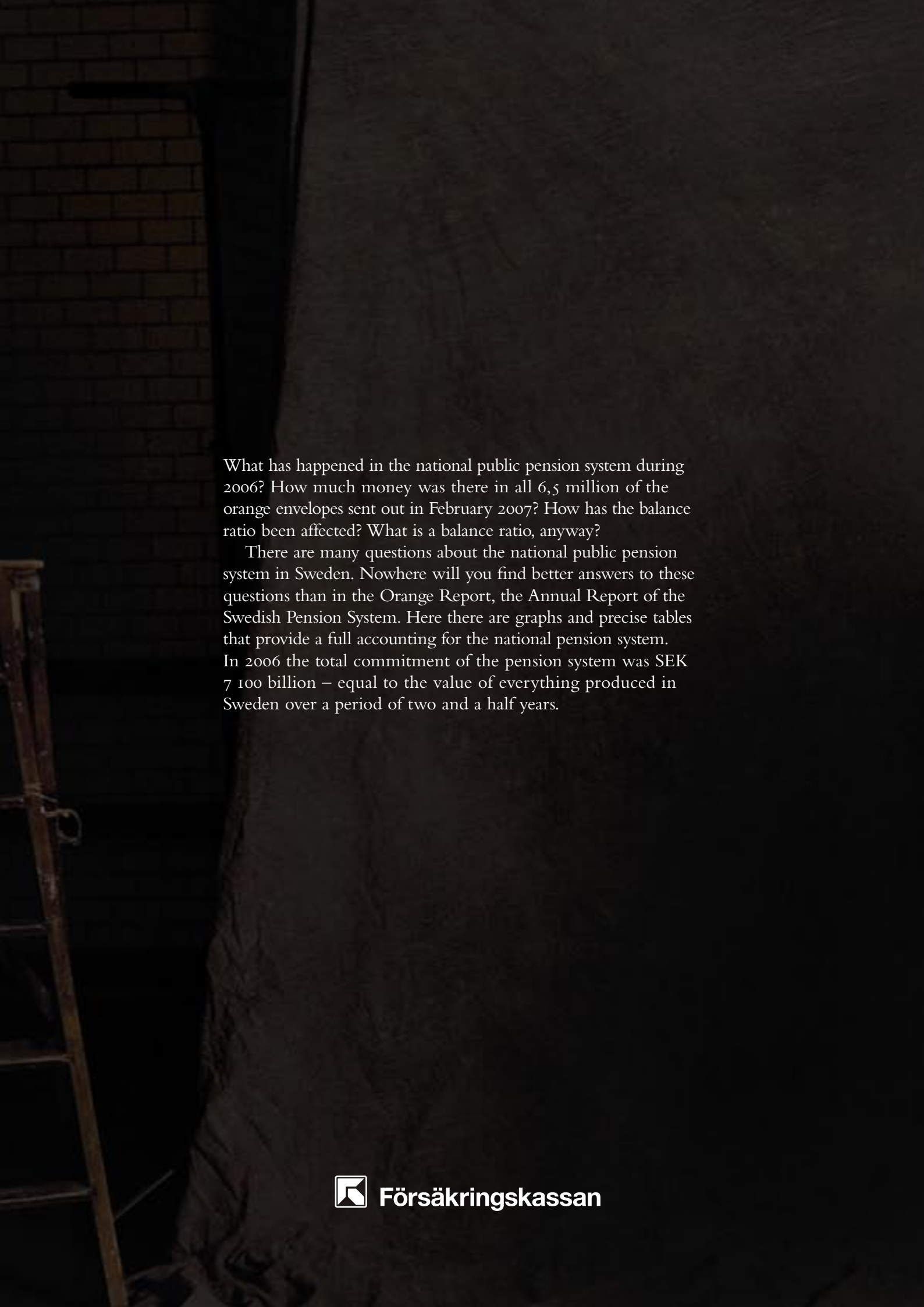

What has happened in the national public pension system during 2006? How much money was there in all 6,5 million of the orange envelopes sent out in February 2007? How has the balance ratio been affected? What is a balance ratio, anyway?

There are many questions about the national public pension system in Sweden. Nowhere will you find better answers to these questions than in the Orange Report, the Annual Report of the Swedish Pension System. Here there are graphs and precise tables that provide a full accounting for the national pension system. In 2006 the total commitment of the pension system was SEK 7 100 billion – equal to the value of everything produced in Sweden over a period of two and a half years.

Försäkringskassan