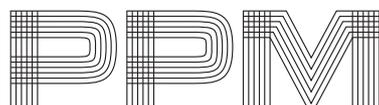


# **Pension savers and pensioners**

**2008**



Premium Pension Authority

*Pension savers and pensioners 2008*  
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## Summary

### *6 million individuals and SEK 233 billion in managed assets*

The premium pension system covers 6 million people at present, of whom 5.4 million are pension savers and 555,000 are pensioners.

The fund assets amounted to SEK 231 billion at year-end, while the managed assets in the with profit annuities business amounted to SEK 1.7 billion. The pension savers' share of the fund assets was equivalent to 96 per cent, while the pensioners' share was 4 per cent.

Almost SEK 29 billion in new pension rights was invested during the year, while SEK 807 million was paid out in premium pensions.

### *New savers select Premiesparfonden, established ones select their own portfolio*

Almost 42 per cent of the pension savers had their funds invested in The default fund (Premiesparfonden), while the rest selected their own portfolios. In spite of this, only 27 per cent of the fund assets were invested in The default fund. The difference is due to most people with assets in The default fund having relatively little capital to invest. This in turn is because many of them were new in the system and thus had relatively small pension allocations.

In recent years, 98 per cent of new savers have invested their money in The default fund. As pension savers get older and acquire more in their premium pension accounts, more of them choose to invest in their own portfolios.

Of the pensioners, about 51 per cent selected their own portfolio, while 36 per cent invested in The default fund. The remaining 13 per cent invested their savings in the with profit annuities business.

### *SEK 42,100 average credit balance for pension savers*

The average credit balance was higher for pension savers with their own portfolio than for those with The default fund: SEK 52,900 compared to SEK 27,000. The main reason for this difference is, as mentioned above, that it is mainly new savers with low pension allocations who have The default fund.

For the pensioners, the average credit balance was higher for those with a with profit annuity than for those with unit-linked insurance: SEK 25,200 compared to SEK 17,900.

### *SEK 142 per month in premium pension*

Pensioners can choose to draw the whole or parts of their pension from the age of 61. Almost all, 95 per cent, chose to draw the whole of the annual pension sum. In 2008, pension payments in this group amounted on average to SEK 142 per month.

### *Pension savers' value growth was -29.0 per cent in 2008 and -1.6 per cent since the start*

The unrest on the financial markets had a significantly negative effect on the value growth of the fund savings. Since a large proportion, about 80 per cent, of the pension savers' fund assets was invested in shares, the decline in the stock market had a major impact on value growth.

The value growth during the year was on average -29.0 per cent, which can be compared with 5.3 per cent in 2007. Only 1.2 per cent of the savers recorded positive growth. In 2007, the corresponding proportion was 92.5 per cent. Savers with self-selected portfolios recorded somewhat better value growth than those who invested in The default fund. Similarly, women's value growth was somewhat better than men's.

When the value growth is calculated from the start, i.e. from when the pension savers joined the premium pensions system, the annual value growth was -1.6 per cent. Up until 2007, however, the value growth was 5.9 per cent. Approximately 23 per cent of the savers recorded positive annual value growth since the start. The remainder recorded an annual decrease in value.

#### *Pensioners' value growth was -28.4 per cent in 2008 and 0.9 per cent since the start*

The return on the pensioners' fund saving was -28.4 per cent in 2008 and 0.9 per cent since the start. The decrease in value during the course of the year did not have such an impact on the annual value growth since the start for the pensioners as for the pension savers. This is because about 92 per cent of the pensioners joined the premium pensions system as far back as 1995 (as pension savers), while the pension savers on average have a significantly shorter savings period. The development over the past year thus had a greater impact for the pension savers group.

#### *Better value growth in the with profit annuities business*

The bonus rate for the with profit annuity was, on average, 2.2 per cent in 2008 and amounted to an average of 4.3 per cent per annum for the period 2001–2008. At the same time, the return on the assets in with profit annuities was -2.0 per cent in 2008.

The fact that the return was better on with profit annuities than on unit-linked insurance was because much of the with profit annuity assets were invested in interest-bearing assets.

#### *Premium pension capital is slow-moving*

In 2008, almost 77 per cent of pension savers had their capital invested in one of the top 10 fund selections. At the same time, about 18 per cent of the capital was invested in one of the ten funds with the most premium pension capital.

Over time, the top 10 fund selections are more or less the same funds as in PPM's fund supermarket. Similarly, it is over time more or less the same 10 fund selections that have the most premium pension capital. This shows that the pension capital is slow-moving. It also reflects that relatively few savers and pensioners switch funds.

#### *Active savers succeeded best with their management*

It was a relatively small proportion of pension savers and pensioners, about 12 per cent, who switched funds during the year. As regards those who had a self-selected portfolio, 23 per cent of the pension savers and 7 per cent of the pensioners switched funds. Common to these two groups is the fact that those who were most active during the year were also those who had the best return and who had the lowest risk in their portfolio at year-end.

During 2007 too, the most active savers had the best returns, but they also had the highest risk in their portfolios. This indicates that the most active savers reduced the risk in their portfolios during the year and thus succeeded in avoiding the worst decline following the turbulent market development. The risk was reduced mainly by the savers increasing the proportion of fixed-income funds in their portfolios.

#### *Portfolio risk increased*

There was a shift towards higher risk in self-selected portfolios from the previous year. The shift in the risk level can be explained chiefly by most of the pension savers leaving their portfolios untouched throughout the whole of the turbulent stock exchange year. The rise in the level of risk was thus not due to the pension savers and pensioners actively having chosen to alter their portfolio holdings.

#### *PPM's discount demands reduce administration fees and contribute to higher pension*

The management fees amounted on average at year-end to 0.34 for self-selected portfolios and to 0.15 per cent for The default fund.

PPM work actively for the reduction of the management fees for pension savers. PPM's discount demands result in, on average, 0.3–0.5 percentage points lower fees. This makes the premium pension 10–15 per cent higher.

#### *PPM fee was on average 0.16 per cent*

The PPM fee for 2008 was 0.20 per cent, with a ceiling of SEK 110. The average fee, calculated on the basis of everyone in the premium pension system, was 0.16 per cent.

#### *High fees for private management services*

The number of fund switches increased to 3.2 million during the year. It is estimated that almost half of these fund switches were made through private management services.

The fees for management services are generally high. The average fee is around SEK 500 per annum, which corresponds to 1.2 per cent of the average pension saver's credit balance. With this annual fee and an investment horizon of approximately 30 years, the service needs to give a surplus yield equivalent to about 30 per cent for the saver to regain the fee.

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## Glossary

The following is a compilation of key words used in the report.

**Active selection:** Self-selection of a fund, either on joining or thereafter.

**Self-selected portfolio:** A composition of securities funds selected by the pension saver or pensioner.

**Year of joining:** In the report, the year of joining is the year when a person gets information for the first time from PPM about the possibility of selecting funds in the premium pension system.

**Pension saver:** A person who has premium pension capital invested in a self-selected portfolio or in Premiesparfonden (The default fund) and who has not yet started to draw their premium pension.

**Pension entitlement:** The amount allocated annually to the national pension, on the basis of the pensionable salary.

**Pensioner:** A person who is drawing their premium pension. A person who at some point started drawing their premium pension but subsequently ceased drawing it is still regarded as a pensioner. A person who, parallel to withdrawals, continues to earn new pension entitlements is also regarded as a pensioner.

**Portfolio:** A compilation of securities funds.

**Portfolio selection:** Selection of securities funds to be included in the portfolio.

**Rebalance:** Adjust the composition of funds in the portfolio so that the original, or selected, level of risk is maintained. In the report, rebalancing of the portfolio is regarded as fund switching.

# 1 Introduction

The premium pensions system is the consolidated part of the national old-age pension system, at present covering approximately 5.8 million people. The idea of part of the pension system being consolidated is that the individual has the possibility of reducing the risk in their national pension on the basis of their own financial situation.

The balance in the premium pension accounts are affected by the pension savers' and the pensioners' investment behaviour and by the developments on the financial markets. Since the premium pension is an important part of the total retirement pension, it is interesting to track the savers' and pensioners' behaviour over time.

This report gives a comprehensive description of the situation for pension savers and pensioners at year-end 2008. The purpose of the report is to trace the development of the premium pension and the pension savers' and pensioners' investment behaviour over time. Focus has been placed, however, on 2008.

The report is based on a random selection of the individuals covered by the premium pension system. Almost 177,000 pension savers and 18,000 pensioners are included in the selection, which is equivalent to approximately 3 per cent of the population covered by the premium pension system in 2008. Some of the data in the report are based on statistics for the total population in the premium pension system. Specific note is made in the report if the figures are based on other data than the random selection. Appendix 1 describes the selection in more detail as well as the data on which the report is based.

Unless otherwise stated in the report, the data presented are per 31 December 2008. The data presented in parenthesis refer to corresponding figures for 2007.

## 2 The premium pension system 2008

Premium pension capital is invested in different types of equities funds and fixed-income funds. The growth of the pension capital is thus dependent on the growth on the financial markets. To allow better understanding of the growth of the premium pension capital, an overall view is provided in this chapter of the growth on the financial markets during the period 2000–2008. A description is also given of the flows that occur annually in the premium pension system. The chapter concludes by showing the value growth for the funds in PPM's fund supermarket and The default fund (Premiesparfonden).

### 2.1 The premium pension system in figures

*6 million people in the premium pension system*

The premium pension system covers more than 6 million people at present, of whom 5.4 (5.4) million are pension savers and more than 555,000 (450,000) are pensioners.

When the present pension system has been fully implemented, it will include approximately 7 million savers and pensioners. It is mainly the number of pensioners that will increase as the new pension system is phased in. Appendix 2 provides a clear description of the premium pension system and the phasing-in process.

Approximately the same number of women and men are covered by the system. Among pension savers, 49 (49) per cent are women and 51 (51) per cent are men. This reflects the gender distribution in the professionally active part of the population. Among pensioners, 50 (51) per cent are women and 50 (49) per cent are men.

*SEK 231 billion in fund assets*

At year-end 2008, the fund assets in the premium pension system amounted to SEK 231 billion (incl. inflow of new pension entitlements equivalent to around SEK 29 billion). Approximately 96 per cent of this sum belonged to the pension savers and 3.8 per cent to the pensioners.

Only pensioners have the possibility of investing their pension capital in PPM's with profit annuities business. At year-end, the value of the total assets in this type of insurance amounted to SEK 1,738 million. This is equivalent to around 0.7 (0.4) per cent of the total assets in the premium pension system.

### 2.2 Flow in the premium pension system

*163,000 new pension savers*

In 2008, approximately 163,000 (133,000) new pension savers had the possibility of investing their pension capital in PPM's fund supermarket.<sup>1</sup> Up until then, PPM

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<sup>1</sup> This, however, is a qualified truth. Those who were new savers had their savings transferred from temporary management to their premium pension account in December 2007. At that point they had the possibility of selecting funds from PPM's fund supermarket. PPM did not send information about this possibility to these savers until the start of 2008. In practice, most new savers are not aware they can select funds until they receive PPM's information.

had managed their capital in accounts with Riksgälden (The Swedish National Debt Office). The new savers who do not notify a fund selection have their capital invested in The default fund. Table 2.1 below shows the number of new pension savers from 2000 and onwards, as well as the total number of individuals covered by the premium pension system.

The year 2000 was the first year when it was possible to invest premium pension capital in the PPM fund supermarket. Up until then, the capital had been managed in accounts with Riksgälden. The prematurely retired were given this possibility in 2001. This explains the large number of new pension savers those years. As regards the remaining years, the new pension savers are individuals who have entered the labour market and who have started to earn pension entitlements for the first time.

#### *SEK 29 billion in new pension entitlements*

The table also shows the annual capital inflow in the form of pension entitlements. In December 2008, almost SEK 29 (28) was invested in PPM's fund supermarket, i.e. in those funds that the pension savers had selected, and in The default fund. Of this sum, SEK 239 million came from the new pension savers' pension entitlements.

**Table 2.1: Number of pension savers and pension entitlements in the premium pension system, 2000–2008.**

Year	Pension savers and pensioners, thousands	Pension entitlements, inflow, SEK billion	New savers, thousands	Pension entitlements, new savers, SEK billion
2000	4 440	55.8	4 440	5 580
2001	4 900	18.3	493	0.670
2002	5 100	20.4	196	0.216
2003	5 200	21.1	150	0.167
2004	5 300	22.3	129	0.142
2005	5 400	23.4	117	0.139
2006	5 600	49.6	115	0.148
2007	5 800	27.6	133	0.180
2008	6 000	28.6	163	0.239

#### *SEK 825 million in pension payments*

In 2008, around 112,000 (105,000) people became pensioners. Further on in the report, the number of pensioners over time is presented.

The first pension payments were made in 2001, when almost SEK 400,000 was paid out. In 2008, the payments amounted to SEK 807 million. The payments will increase along with the phasing-in of the premium pension system. Most pensioners have their pension capital invested in unit-linked insurance even if an increasing number are changing over to the with profit annuity. See table 2.2.

**Table 2.2: Pensions paid from unit-linked insurance and with profit annuities, and the flow from unit-linked insurance to with profit annuities, 2001–2008, SEK thousands.**

Year	Paid pensions, total	Paid pensions, unit-linked insurance	Transfer from unit-linked insurance to with profit annuities	Paid pensions, with profit annuities
2001	400	1 200	31	370
2002	1 400	2 700	130	1 300
2003	10 900	25 500	955	9 900
2004	42 500	44 300	3 200	39 300
2005	103 700	182 700	9 900	93 800
2006	231 600	324 700	25 000	206 500
2007	460 100	495 600	55 300	404 800
2008	825 400	473 400	91 500	733 900

## 2.3 Development on the financial markets

### *Sharp market downturn in 2008*

The economic situation deteriorated sharply in 2008, both in Sweden and the rest of the world. A striking feature of the decline was major falls in prices on the stock exchanges. The return on shares is of great significance for the growth of premium pension capital since around 80 per cent of the capital is invested in equities funds.

Diagram 2.1 gives a picture of how the Swedish and foreign equities and fixed-income markets have developed during the period 2000–2008. A considerable downturn started on the equities markets in 2007, continuing throughout the whole of 2008. Percentage-wise, the downturn is much greater than the one that occurred in the years directly after the turn of the millennium. As far as level is concerned, the index was still higher at the end of 2008 than it was in 2002. One explanation is that the downturn in 2008 came after a prolonged, considerable rise.

The downturn has been greatest on the emerging markets. At the same time, it is that equities market that had the best index level at the end of 2008. At year-end, the index levels for the Swedish and foreign equities markets were under 100.

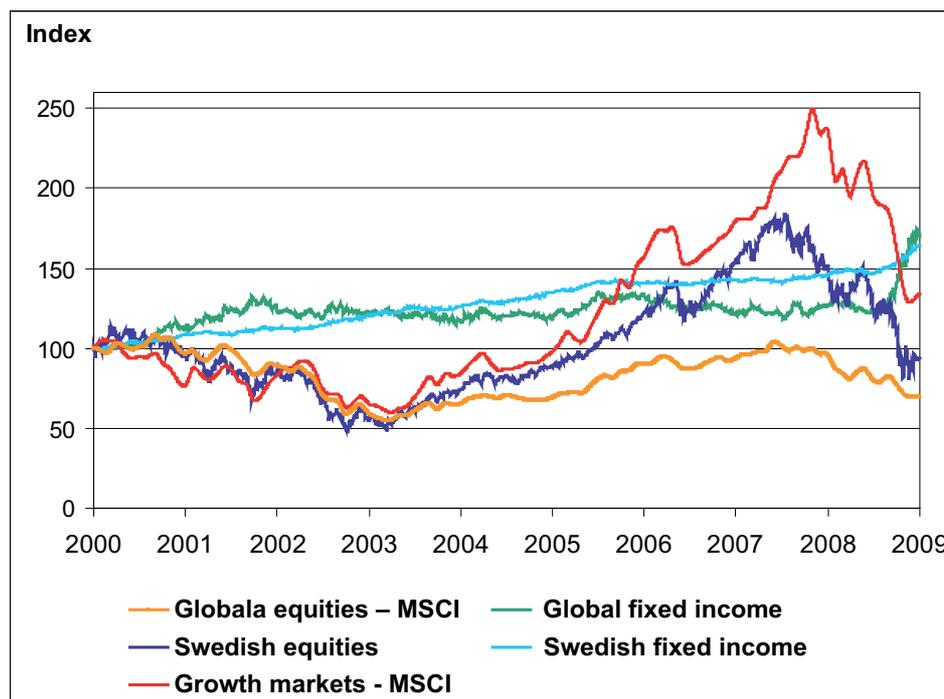
### *Climbing fixed-income index as result of falling interest rates*

The growth on the global and Swedish fixed-income markets has been relatively stable since the beginning of the 2000s. Indices for these markets, however, rose significantly during the latter part of 2008. The rising indices are a result of interest rates having fallen sharply. The reason for the interest rates having fallen is the financial unrest.

### *Good value growth in the premium pension system for those who invested in interest*

The return on premium pension capital depends of course on the extent to which pension savers and pensioners have studied the upturns and downturns on the equities markets. However, the savers and pensioners who invested in the fixed-income markets recorded relatively good value growth, irrespective of when they entered these markets. Those who have foreign funds benefited somewhat from the fall in the krona's exchange rate in 2008.

**Diagram 2.1: The value growth in the Swedish and foreign equities and fixed-income markets, 2000–2008.**



Source: Global equities – MSCI, Global fixed-income – World, Citigroup, Government Bond Index, Swedish equities – OMXSBCAP OMX-Stockholm Exchange, Swedish fixed-income – Sweden, OMRX, Government Bond Index, Growth markets – MSCI.

Note: Growth markets include global equities on growth markets.

## 2.4 Value growth in PPM's fund marketplace<sup>2</sup>

*The return from the fund supermarket was -34.5 per cent*

The year 2008 was characterised by a severely negative stock market trend both in Sweden and much of the rest of the world. The value of the Stockholm Stock Exchange, for instance, fell by 42 per cent during the year. The average return from PPM's fund supermarket, including The default fund, also showed a marked decline, amounting to about -34.5 (5.6) per cent.

The improved value growth in the fund supermarket depended to a great extent on many pension savers and pensioners having for the most part invested their pension capital in foreign equities. The downturn on the Stockholm Stock Exchange was greater than on most of the major foreign stock exchanges. In addition, a certain amount of savers' capital is invested in fixed-income funds. The returns from the fixed interest funds have been positive. A contributory reason for the more positive trend for the foreign funds is that they benefited from the fall in the krona's exchange rate in 2008.

The downturn in the stock exchange in 2008 resulted in the average annual return for the period 2001–2008 falling to -3.0 (2.0) per cent.

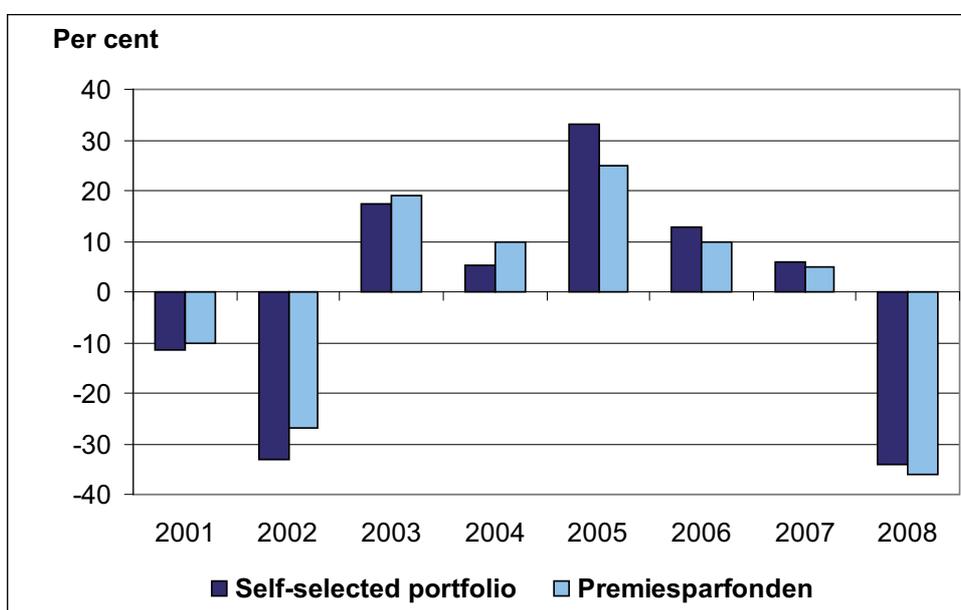
<sup>2</sup> The return on the funds is calculated as time-weighted return. For more information on the measurement, see Appendix 3.

*Return on The default fund was -36.2 per cent*

Of the total managed fund capital, more than 27 (28) per cent was invested in The default fund, equivalent to SEK 62 billion at year-end 2008. Premiesparfonden is managed by the Seventh Swedish Pension Fund (Sjunde AP-fonden).

Diagram 2.2 shows that the return on The default fund followed the average return for the funds in the fund supermarket relatively well. During the past four years, however, The default fund generated a somewhat poorer return. In 2008, the return on The default fund was -36.2 (4.7) per cent. This can be compared with -33.8 (6.0) per cent for the average return from the fund supermarket. Seen over the period 2001–2008, the return was -3.2 (2.5) per cent for The default fund and -2.8 (1.9) per cent for the funds in the fund supermarket.

**Diagram 2.2: Annual return for funds in self-selected portfolios and for The default fund, 2001–2008.**



*Note: The return is presented as time-weighted return. More information on the return measurement can be found in appendix 3.*

# Pension savers

## 3 Balance in premium pension account and distribution of capital

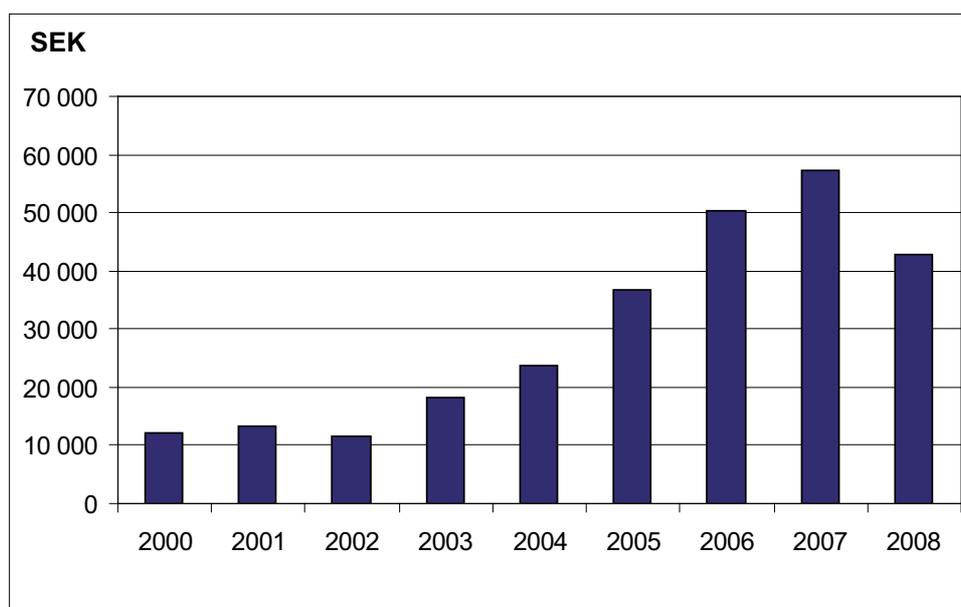
In this chapter, it is shown how the average balance in the pension savers' premium pension accounts and how the fund assets are divided among savers with self-selected portfolios and The default fund (Premiesparfonden) according to age, education, income and county of residence.

### *SEK 42,100 average credit balance*

The negative return from premium pension funds in 2008 significantly reduced the average balance of the pension savers' accounts. At year-end the average credit balance was around SEK 42,100 (58,600).

The credit balance increases when new pension entitlements are deposited. The balance increases of course even when the return from the pension capital is positive, and decreases when the return is negative. As shown in diagram 3.1, the average credit balance has increased each year, with the exception of the last major stock market decline at the beginning of the 2000s. During that period, there was decrease of 12 per cent. During the period 2003–2006, the increases were considerable, between 30 per cent and 54 per cent per annum, which coincided with the positive trend, mainly on the equities markets. In 2007, the credit balance increased by about 14 per cent, whereas it decreased by 28 per cent in 2008.

**Diagram 3.1: Average balance in pension savers' premium pension account at end of respective year, 2000–2008.**



*Note: The bars in the diagram indicate the mean value of the pension savers' account balance on 31 December each year.*

*Those with own portfolios have greater credit balance*

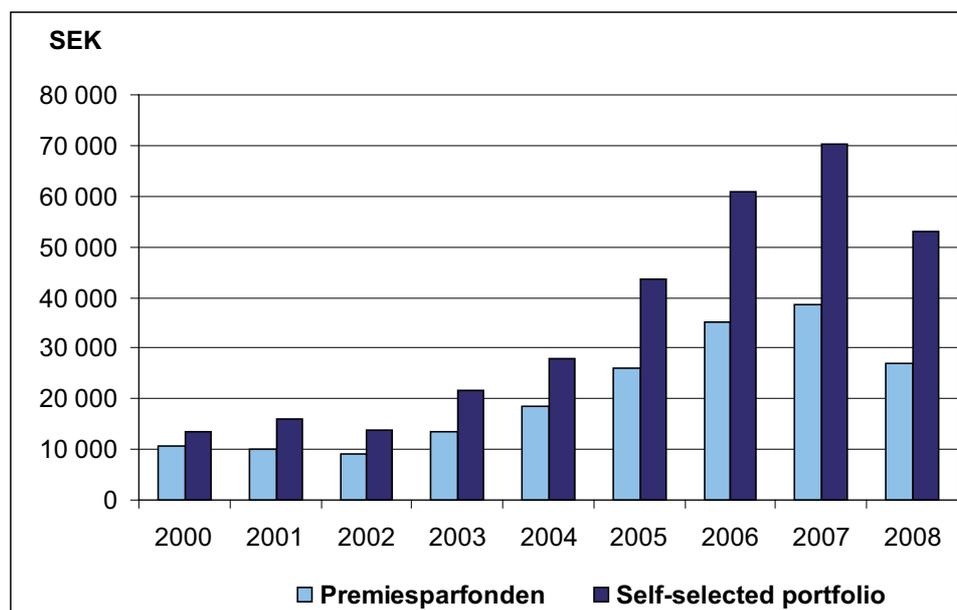
Pension savers with self-selected portfolios have a greater average balance in their premium pensions accounts than savers with The default fund. See diagram 3.2. At year-end 2008, the average for pension savers with self-selected portfolios was SEK 52,900 (70,400) and, for savers with The default fund, SEK 27,000 (40,800).

The differences in the premium pension accounts have increased over time. In 2000, the average credit balance for those with The default fund was 83 per cent of the average credit balance for those with a self-selected portfolio. At year-end 2008, the corresponding figure was 51 (53) per cent.

One explanation for this difference is that a large part of the capital inflow to The default fund comes from young savers. This group of savers usually has a low income and, thus, low pension allocations, resulting in a lower average credit balance. Most who select their own portfolio do this later in life when they have, on the one hand, higher income and, thus, larger pension allocations and, on the other hand, a few years of accumulated pension saving. PPM's annual analyses of people choosing for the first time indicate that those who select their own portfolio on joining also have, on average, larger pension entitlements to invest than those who choose to have their pension entitlements invested in The default fund.

Another reason for the increased difference between 2007 and 2008 is that the average decrease in value was slightly greater for The default fund.

**Diagram 3.2: Average balance in premium pension account for pension savers with self-selected portfolio and The default fund respectively.**



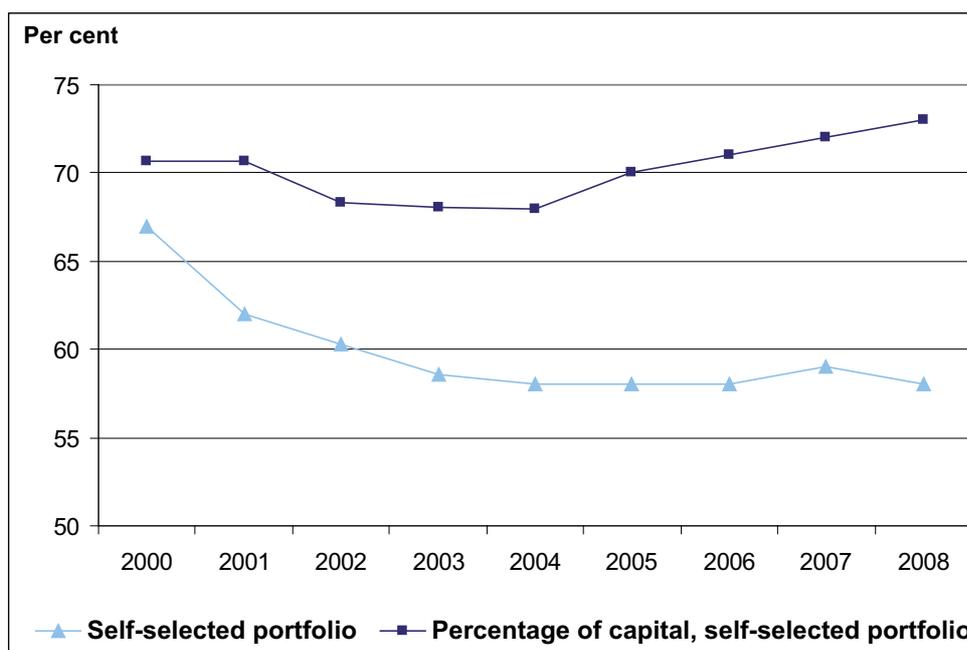
*Note: The bars in the diagram indicate the mean value of the pension savers' credit balance on 31/12 each year.*

*58 per cent of savers have self-selected portfolio and own 73 per cent of the capital*

At year-end 2008, more than 58 (59) per cent of pension savers had a self-selected portfolio, while the rest had their capital invested in The default fund. Diagram 3.3 shows the trend of the proportion of savers with self-selected portfolios and their share of the premium pension capital. It is apparent that the proportion with self-selected portfolios has decreased over time. This decrease is mainly due to the interest in selecting one's own portfolio being unusually great in connection with the introduction of the premium pension system. This interest waned in subsequent years. The trend has stabilised, however, in recent years. This can be interpreted as the interest in choosing one's own portfolio having been normalised.

While the proportion of pension savers with their own portfolio has decreased and then stabilised, their share of the capital has increased. At year-end 2008, their share amounted to 73 (72) per cent. The explanation for their increasingly large share is that the interest in selecting one's own portfolio has increased along with the rise in the account balance. As a comparison, 98 per cent of the year's new savers, who for obvious reasons have small pension allocations, have had their premium pension capital invested in The default fund.

**Diagram 3.3: Proportion of pension savers with self-selected portfolio and their share of the capital.**



### *Men have higher credit balance*

Men have an average of around SEK 7,900 (12,200) more in their premium pension account than women. See table 3.1. This is probably due to men in general having a higher income and being more professionally active than women.

**Table 3.1: Average credit balance in men's and women's premium pension accounts at year-end 2008, SEK.**

	<b>All</b>	<b>Self-selected portfolio</b>	<b>The default fund</b>
<b>All</b>	42 100	52 900	27 000
Men	45 900	58 000	29 600
Women	38 000	47 700	24 200

### *Age group 50-59 has largest credit balance*

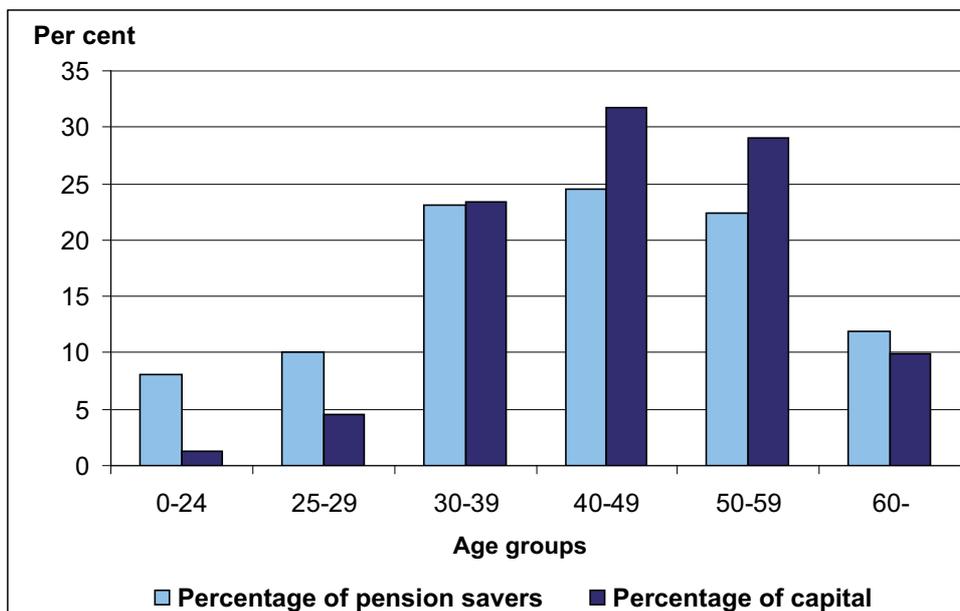
At year-end 2008, the pension savers' average age was 43 (43). Table 3.2 shows the average balance in the pension savers' premium pension accounts, according to age. It is apparent from the table that pension savers in the age group 50–59 have, on average, more in their accounts than the other age groups.

**Table 3.2: Average credit balance in pension savers' premium pension accounts, by age, at year-end 2008, SEK.**

<b>Age</b>	<b>All</b>	<b>Self-selected portfolio</b>	<b>The default fund</b>
18-24	8 800	9 700	7 800
25-29	25 100	27 900	22 200
30-39	47 000	52 000	42 000
40-49	55 300	60 500	49 800
50-59	51 700	55 100	48 100
60-	30 800	33 000	28 400

Diagram 3.4 shows the proportion of pension savers and their share of the unit-linked insurance capital according to age. It is apparent that both the proportion of pension savers and the proportion of capital are greatest in the age groups 30–59 år. This is natural since most professionally active people are in these age groups. In the long term, when the pension system has been phased in completely, the proportion of capital will probably have increased in the age group 60-.

**Diagram 3.4: Proportion of pension savers and of unit-linked insurance capital, by age, at year-end 2008.**



*Professionals and high earners have higher credit balance*

People with the most education also have, on average, the most in their premium pension accounts. See table 3.3. This is probably due to them generally having a higher income than others and, thus, larger pension allocations.

**Table 3.3: Average credit balance in pension savers' premium pension accounts, by education and income, at year-end 2008, SEK.**

	All	Self-selected portfolio	The default fund
<b>Education*</b>			
Pre-upper secondary	32 200	47 400	20 200
Upper secondary	43 400	52 200	29 500
Post-upper secondary	47 500	55 800	32 100
Post graduate studies	57 000	65 600	42 500
<b>Income 2007, SEK thousands**</b>			
0	16 300	24 100	7 800
1-50	13 300	22 400	6 400
50-100	18 900	26 400	10 400
100-200	33 300	37 300	21 900
200-300	48 000	50 000	35 000
300-349	60 100	61 500	47 400
349-	71 400	72 500	58 900

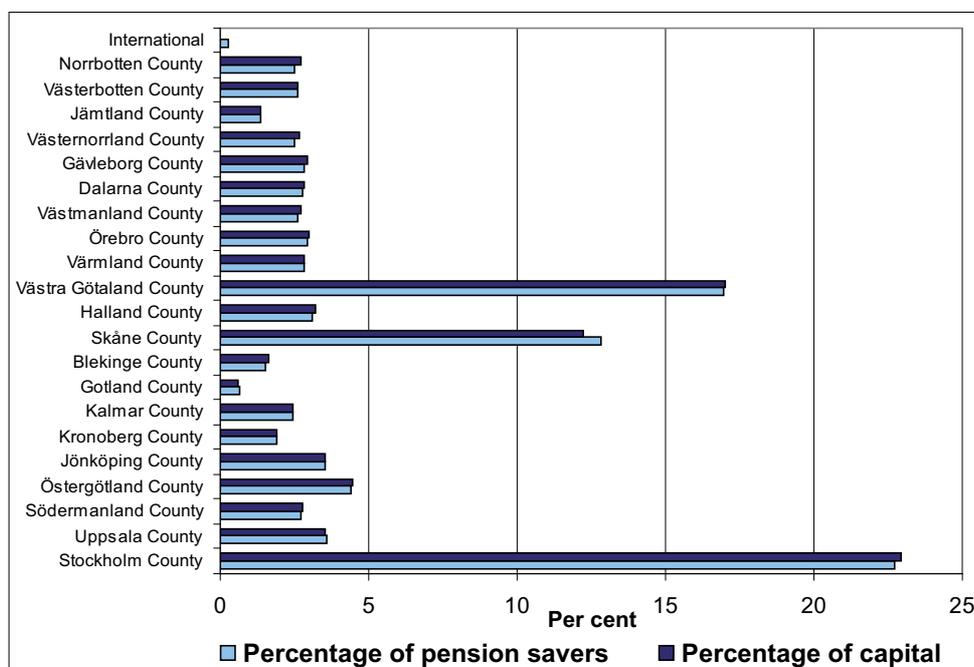
Note: \*There are shortcomings in the database of educational qualifications, involving a considerable loss of information. For instance, the database has no information on the educational qualifications gained by immigrants in their country of origin. Nor is there any information on certain types of education such as adult education (Komvux) and vocational training. In addition, updating of the database is subject to a time lag, which affects, above all, younger categories that have recently left upper secondary school.

\*\*Annual income is based on information on pension savers' earned pension entitlements for 2007.

### Capital distribution and county

The geographical distribution of pension savers tallies more or less with the population distribution in Sweden. See diagram 3.5. More than 53 (52) per cent of the pension savers live in the three urban counties of Stockholm, Västra Götaland and Skåne. The greatest proportion of the pension capital can also be found in these counties, totalling 52 (52) per cent.

**Diagram 3.5: Pension savers and pensioners and their unit-linked insurance capital, by county of residence, year-end 2008.**



## 4 Value growth for pension savers

This chapter presents, on the one hand, the value growth for pension savers in 2008 and, on the other hand, the value growth since the start of the premium pension system in 1995 up until year-end 2008. This also includes the return generated prior to the first fund selection in 2000.

The value growth in this chapter is calculated as internal rate of return. This measure gauges the value growth in the pension savers' accounts and can be compared with the interest that is calculated for bank accounts.

Chapter 2 presented the time-weighted return for funds. The main difference between these measures is that the capital-weighted return takes into consideration the flow of capital that occurs in the saver's account and also the size of the flow of capital. The measure thus takes into consideration the pension entitlements that are paid in, the interest on preliminary pension entitlements, the return from the saver's funds, the fee to PPM, the management fee, the discount on the management fee, and the inheritance gains. The time-weighted return, however, does not take these flows into consideration, nor the size of the capital that generates the return. In other words, it is irrelevant whether it is SEK 1 or SEK 1,000 that generates the return. More information on the value growth measures can be found in appendix 3.

### 4.1 Value growth for pension savers 2008

*Sharp market downturns had negative effect on value growth*

The sharp downturn on the Swedish and foreign equities markets had a marked negative effect on the value growth of the pension savers' premium pension capital in 2008. One explanation is that a relatively large proportion, around 81 per cent, of the premium pension capital is invested in equities. The return on the pension capital is therefore extremely dependent on the growth on the equities markets.

The financial unrest resulted in the risk level for equities, and thus equity funds, increasing. A higher level of risk involves a greater risk of negative return. As indicated later in the report, it was a relatively small percentage of pension savers that reinvested their assets as a result of the financial unrest; in other words, relatively few savers actively reduced the level of risk in their portfolio or rebalanced their level of risk.

*Value growth during the year was -29.0 per cent*

The average value growth for 2008 was -29.0 per cent.<sup>3</sup> This is significantly lower than the value growth for 2007, which amounted to 5.3 per cent. The average decrease in value, however, was not quite as great for savers with self-selected portfolios as for savers with The default fund (Premiesparfonden), -28.7 (5.9) per cent and -29.5 (4.5) per cent.

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<sup>3</sup> It is apparent from the Annual Report of the Swedish Pensions System 2008 that the average annual growth of pension savers' premium pension capital for 2008 was -34.3 per cent and not -28.6 per cent. The difference in the result is mainly due to different methods of calculation. The method of calculation in the Annual Report tends, however, to underestimate the value growth.

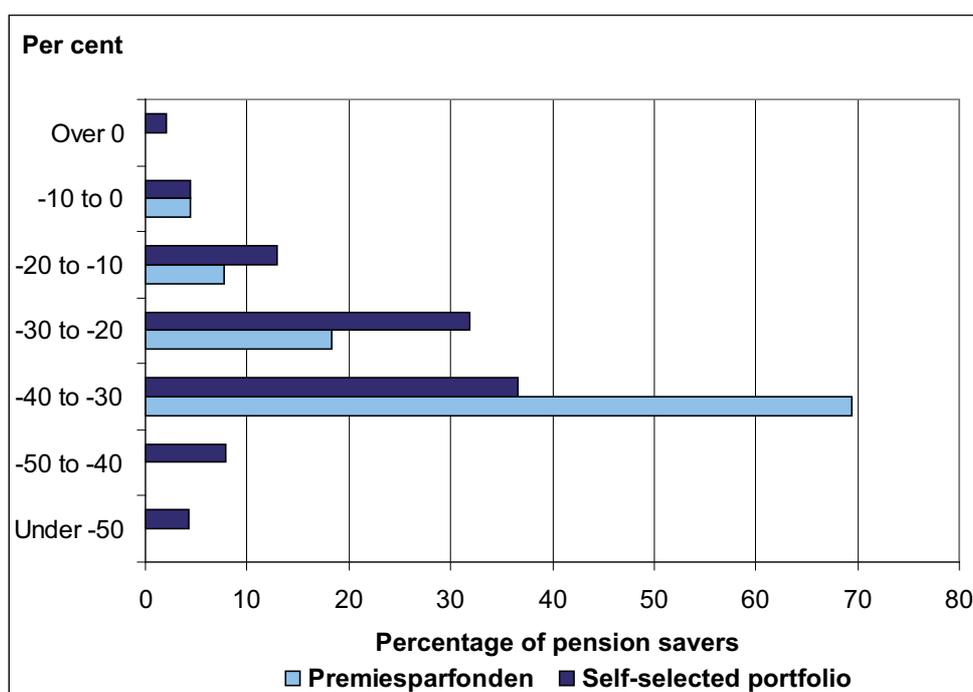
*Only 1.2 per cent of savers recorded positive value growth*

Individual pension savers have normally had a different average return, not just depending on the types of investments, but also on how much capital they have individually had invested during the year. Only 1.2 (92.5) per cent of savers recorded value growth during the year. Most savers had a decrease in value of between -40 and -30 per cent. See diagram 4.1. This can be compared with 2007 when most savers recorded a value growth of between 0 and 5 per cent.

The spread in value growth is significantly lower among savers with The default fund than among those with a self-selected portfolio. The reason is that the spread in The default fund is only due to pension savers having been in the premium pensions system for different lengths of time and having had different amounts of capital in their accounts, and not to them having chosen different types of investments, like those with a self-selected portfolio.

A greater percentage of the savers with The default fund recorded a decrease in value. It was mainly savers with a self-selected portfolio, however, who recorded the greatest decrease in value.

**Diagram 4.1: Average annual value growth for 2008, by proportion of pension savers, per cent.**



*Value growth better for women than for men*

Women with a self-selected portfolio recorded, on average, a slightly lower average decrease in value as compared with the corresponding group of men, -27.9 (5.9) per cent and -29.4 (6.5) per cent respectively. See table 4.2.

Later in the report it is shown that, in 2008, women generally had a somewhat lower level of risk in their portfolios than men. This can be an explanation of why women with a self-selected portfolio had a somewhat better return during this year of financial unrest. However, to come to any conclusions about possible differences between men's and women's investment behaviour, an in-depth analysis is required.

In general, women's portfolio risk was lower in 2007 as well. In 2008, however, women with a self-selected portfolio recorded lower average value growth in comparison with the corresponding group of men.

**Table 4.1: Average value growth in 2008, by gender, age, education and income, per cent.**

	<b>All portfolio</b>	<b>Self-selected fund</b>	<b>The default</b>
<b>All</b>	-29.0	-28.7	-29.5
Women	-28.5	-27.9	-29.4
Men	-29.5	-29.4	-29.5
<b>Age</b>			
18-24	-19.8	-21.5	-19.5
25-29	-28.3	-27.4	-28.6
30-39	-30.4	-30.0	-31.1
40-49	-31.0	-30.3	-32.4
50-59	-29.7	-28.3	-32.9
60-	-27.8	-25.1	-33.2
<b>Education*</b>			
Pre-upper secondary	-26.9	-27.0	-26.8
Upper secondary	-29.3	-28.7	-30.4
Post-upper secondary	-29.7	-29.3	-30.6
Post graduate studies	-31.1	-30.1	-32.8
<b>Annual income, SEK thousands**</b>			
0	-34.1	-32.6	-35.8
1-50	-28.2	-30.5	-26.5
50-100	-26.8	-28.6	-24.7
100-200	-28.0	-28.2	-27.4
200-300	-28.7	-28.6	-29.3
300-349	-29.5	-29.4	-30.4
349-	-30.9	-30.8	-31.3

*Note: \*There are shortcomings in the database of educational qualifications, involving a considerable loss of information. For instance, the database has no information on the educational qualifications gained by immigrants in their country of origin. Nor is there any data about certain types of education such as Komvux adult education and vocational training. In addition, updating of the database is subject to a time lag, which affects, above all, younger categories that have recently left upper secondary school.*

*\*\*Annual income is based on information on pension savers' earned pension entitlements for 2007.*

## 4.2 Value growth since start of the premium pension system

*Annual average value growth since start was -1.6 per cent*

The decrease in value of the premium pension capital in 2008 has made a significant impression on the annual average value growth since the start in 1995 until year-end 2008. The annual average for the period amounted to -1.6 per cent.<sup>4</sup> This is considerably lower than for the corresponding period until year-end 2007, when the average was 5.9 per cent. As mentioned already, a large proportion of the premium pension capital was invested in equities: around 81 per cent. As marked a decline in the equities markets as took place throughout the whole of 2008 thus had a significant effect both on the value growth during the year and on the average annual growth for the period.

*Poorer value growth in The default fund than in self-selected portfolios*

The annual average value growth was lower for savers with The default fund than for those with a self-selected portfolio: -2.8 (5.9) and -0.7 (5.7) per cent respectively. It is worth noting, however, that the annual average return varies among the pension savers. Some savers with their own portfolio recorded significantly poorer value growth than those with The default fund, while others recorded more positive growth. The variations are due, for example, to the extent to which savers benefited from the upturns and downturns on the equities markets. This in turn is due to the time at which savers joined the premium pension system. To achieve a more complete picture, the value growth is presented in this section from a number of different angles.

*23 per cent of pension savers recorded growth in value*

Diagram 4.2 indicates the spread in the annual average value growth among pension savers since the start. It is apparent that most pension savers recorded negative value growth, irrespective of whether they had their own portfolio or had their pension capital in The default fund. A relatively small percentage of pension savers recorded positive value growth, around 23 per cent.<sup>5</sup> This can be compared with the value growth for the period 1995–2007 when around 91 per cent of savers recorded growth in value. For most savers, almost 65 per cent, the value growth lay in the interval -5 to 0 per cent. For the period up until 2007, the value growth for 67 per cent of savers was in the interval 4–6 per cent.

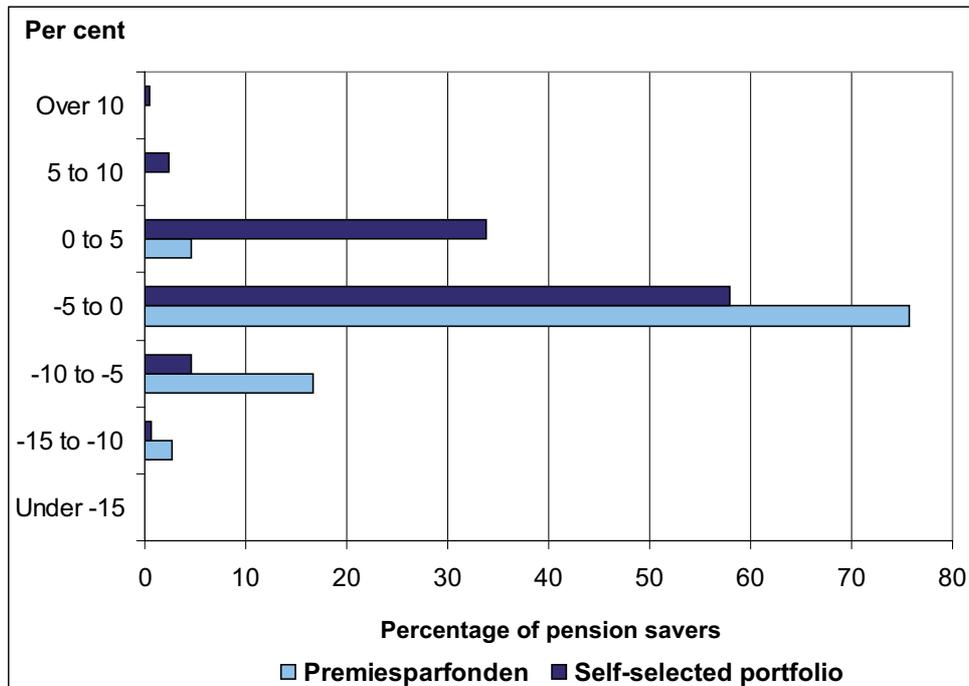
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<sup>4</sup> It is apparent from PPM's web statistics that the annual average value growth for the period 1995–2007 amounted to -0.8 per cent and not to -1.3 per cent as presented in this report. The difference in the results is due to different calculation methods. In the report, the annual average value growth is based on every individual's value growth, while that in the web statistics is calculated for pension savers as a whole. There are also other calculatory differences.

<sup>5</sup> In the Annual Report of the Premium Pension Authority for 2008 it is stated that 28 per cent recorded positive value growth. In the Annual Report, the percentage is based on everyone with unit-linked insurance, i.e. including pensioners while, in this report, the percentage is based only on pension savers.

As indicated in the diagram, the spread of value growth is greater among savers with their own portfolio than among those with The default fund, i.e. there is a greater percentage of savers with their own portfolio recording high or low value growth respectively than those who have The default fund.

**Diagram 4.2: Annual average growth, by proportion of pension savers, 1995–2008, per cent.**

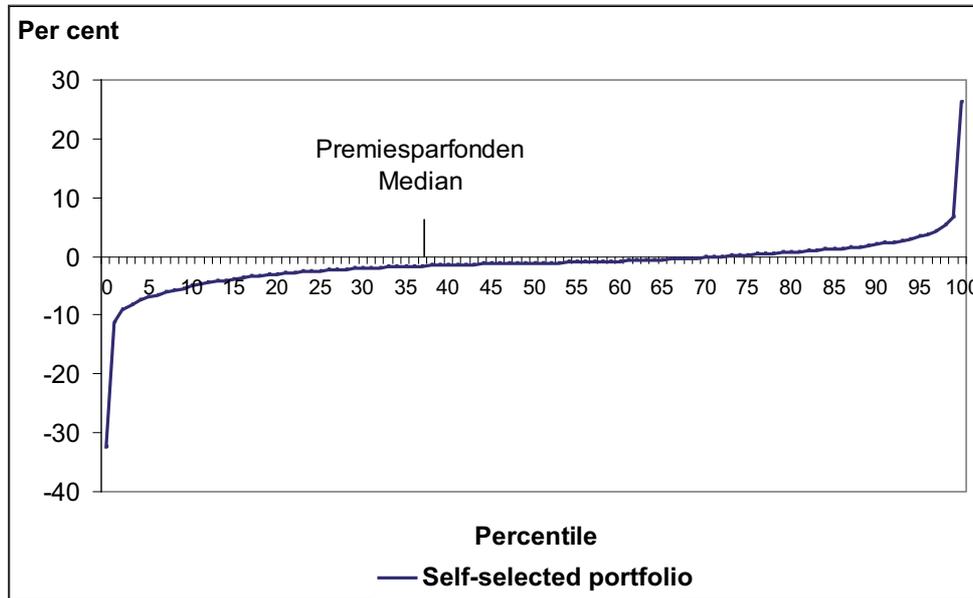


*Note: The value growth is nominal.*

*62 per cent of those with self-selected portfolio recorded better value growth than those with The default fund*

Diagram 4.3 illustrates the annual value growth since 1995, partly by percentiles for pension savers with their own portfolio, and partly the median for savers with The default fund. The diagram shows that 62 (42) per cent of pension savers with a self-selected portfolio recorded better average value growth than those with The default fund.

**Diagram 4.3: Average annual value growth during the period 1995–2008, divided per percentile for pension savers with self-selected portfolio, and the median for savers with The default fund.**



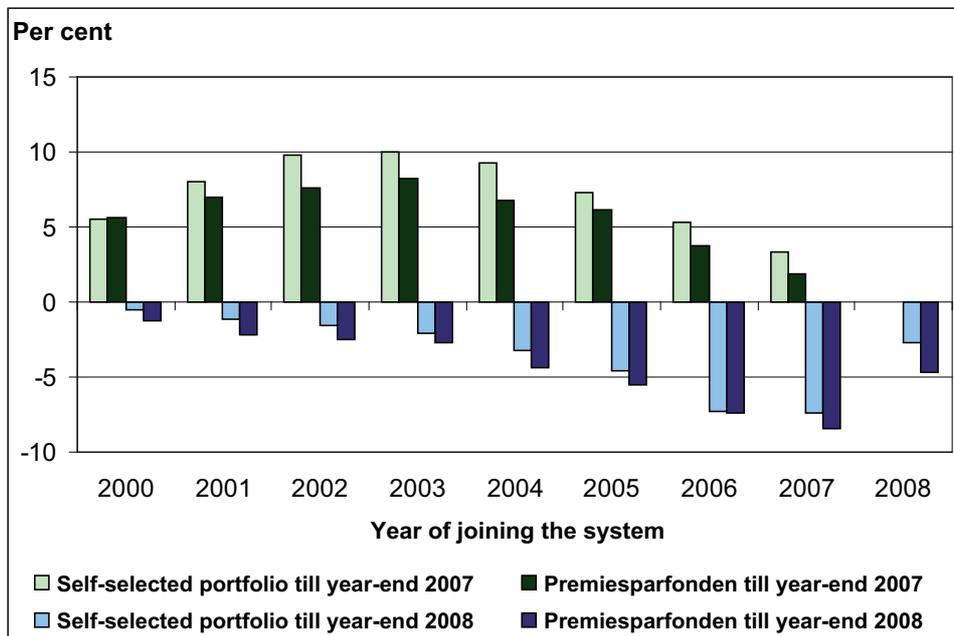
*Note: The term “percentile” may be explained as follows. Pension savers are ranked starting from those with the lowest value growth to those with the highest value growth. They are then divided into a hundred groups of equal size, or percentiles. The median is the 50th percentile, i.e. the middle percentile.*

#### *Year of joining is significant for value growth*

Diagram 4.4 illustrates the annual average value growth after year of joining. It is apparent that the value growth throughout is negative (positive), both for those with their own portfolio and for those with The default fund. The diagram also shows that savers with their own portfolio recorded, on average, better value growth than those with The default fund, irrespective of year of joining.

For those who joined the system prior to 2004, the decrease in value was limited by some of their payments being included in the years of very high return, 2005–2006. Those who did not join the system until 2008 also recorded a relatively small decrease in value, in spite of the downturn in the stock exchange. This was due to them, during most of the time they made payments to the premium pension (since 2006), having had their capital in temporary management at the government borrowing rate. In 2006–2007 this rate was on average 5–6 per cent.

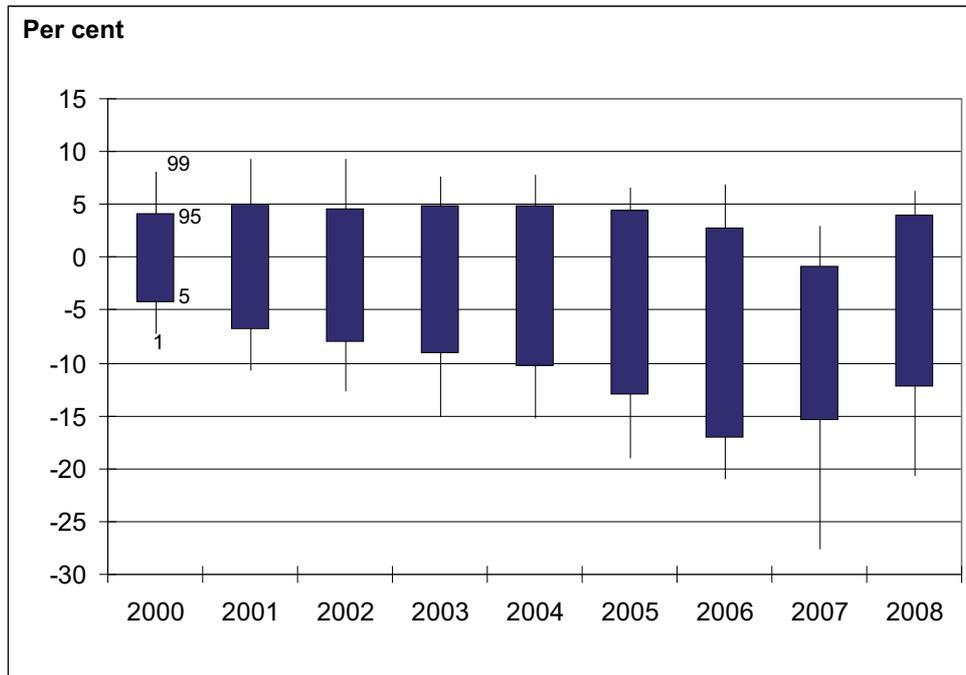
**Diagram 4.4: Annual average value growth for the period 1995–2008 and for the period 1995–2007, after year of joining, for pension savers with self-selected portfolio and for savers with The default fund.**



*Considerable spread in value growth*

Diagram 4.5 illustrates the spread of the annual value growth after year of joining for the group of pension savers that selected their own portfolio. The upper and lower bands on the bars mark the 5th and the 95th percentile, respectively. It is apparent from the diagram that the spread of the value growth is greatest among pension savers who joined 2005–2007. These pension savers are also those who recorded the greatest decrease in value. The diagram also shows, as has already been stated, that most of the pension savers recorded a negative annual value growth.

**Diagram 4.5: Average annual value growth for pension savers with self-selected portfolio as per year of joining and percentiles, 1995–2008.**



*Note: The term “percentile” may be explained as follows. Pension savers are ranked starting from those with the lowest value growth to those with the highest value growth. They are then divided into a hundred groups of equal size, or percentiles. The median is the 50th percentile, i.e. the middle percentile.*

*Women and men have recorded equal decrease in value*

Table 4.2 shows that women and men recorded on average approximately the same annual average decrease in value, -1.6 (5.8) per cent and -1.5 (5.9) per cent respectively.

The table also shows that pension savers in the age group 18–24 (25–29) recorded the lowest (highest) average value growth.

Older pension savers recorded on average a better value growth than younger savers. One explanation could be that older savers benefited from the prolonged rise in the stock exchange to a greater extent than young savers. Another explanation could be that the older savers were nearer retirement and therefore reduced their level of risk, which in turn curbed the decline in value growth.

**Table 4.2: Average annual value growth during the period 1995–2008 for pension savers with a self-selected portfolio and for savers with The default fund, by gender, age, education and annual income, per cent.**

	<b>All</b>	<b>Self-selected portfolio</b>	<b>The default fund</b>
<b>All</b>	-1.6	-0.7	-2.8
Women	-1.6	-0.7	-2.9
Men	-1.5	-0.7	-2.7
<b>Age</b>			
18-24	-5.9	-5.3	-6.0
25-29	-2.9	-2.0	-3.3
30-39	-1.7	-1.2	-2.4
40-49	-1.1	-0.8	-1.8
50-59	-0.6	-0.2	-1.5
60-	-0.1	0.5	-1.1
<b>Education*</b>			
Pre-upper secondary	-1.8	-0.4	-3.0
Upper secondary	-1.5	-0.7	-2.8
Post-upper secondary	-1.3	-0.8	-2.3
Post graduate studies	-1.1	-0.6	-1.8
<b>Annual income, SEK thousands**</b>			
0	-1.5	-0.3	-2.8
1-50	-3.2	-1.3	-4.5
50-100	-2.3	-1.1	-3.6
100-200	-1.2	-0.7	-2.8
200-300	-1.0	-0.8	-2.5
300-349	-1.0	-0.9	-2.2
349-	-0.9	-0.8	-1.9

*Note: \*There are shortcomings in the database of educational qualifications, involving a considerable loss of information. For instance, the database has no information on the educational qualifications gained by immigrants in their country of origin. Nor is there any data about certain types of education such as Komvux adult education and vocational training. In addition, updating of the database is subject to a time lag, which affects, above all, younger categories that have recently left upper secondary school.*

*\*\*Annual income is based on information on pension savers' earned pension entitlements for 2007.*

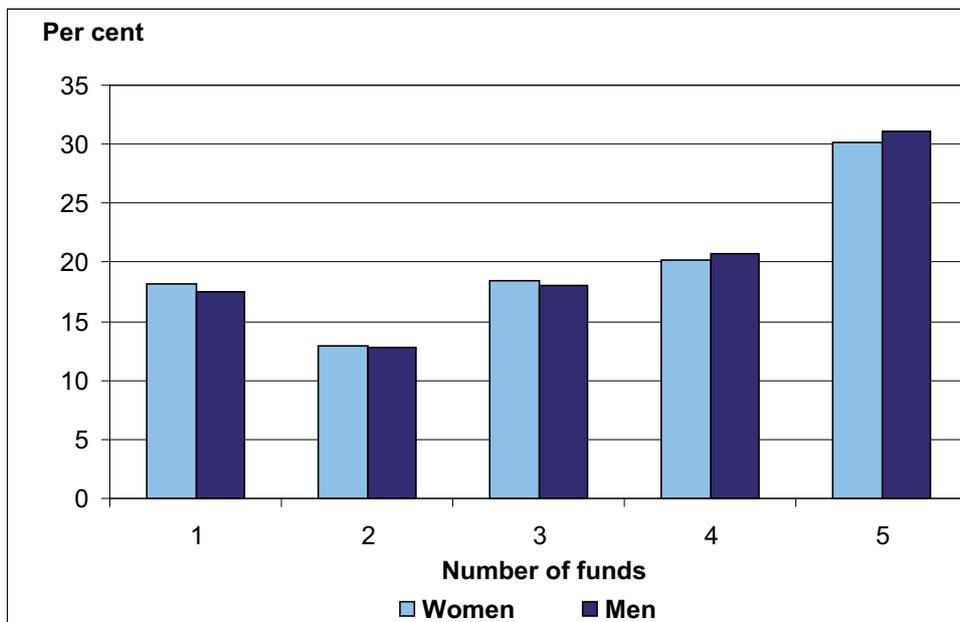
## 5 Portfolio selection

This chapter presents the number of funds selected and the funds that the greatest number of pension savers selected for their portfolios. This is followed by a description of pension savers' portfolio selection based on level of risk and level of fees.

### 5.1 Number of funds selected

Pension savers may choose to invest their pension capital in up to five funds. At year-end 2008, an average of 3.3 (3.3) funds were included in the self-selected portfolios. Diagram 5.1 shows that around half of the savers had four to five funds in their portfolios. The average number of funds selected by people choosing for the first time has decreased over time, from 3.4 funds in 2000 to 2.2 funds in 2008.

Diagram 5.1: Number of funds in self-selected portfolios, year-end 2008.



### 5.2 Top fund selections

*77 per cent of savers have the most popular funds*

At year-end 2008, a total of 773 (785) funds were included in PPM's range of funds on offer, with 83 (86) fund management companies represented. Table 5.1 lists pension savers' Top 10 funds. It is apparent that 77 per cent of savers had selected from these funds. The corresponding proportion in 2007 was 81 per cent.

*The most popular funds are equities funds*

Of the ten funds, eight (eight) are equities funds and two (two) are fixed-income funds. Eight (eight) funds are registered by Swedish fund management companies, while two are foreign. Note that AMF Pension and Swedbank Robur each have three funds on the list.

The net fund fees, i.e. after deduction of the PPM discount, are relatively low. The net fees are within the interval 0.2–0.6 per cent.

A comparison with the corresponding Top 10 list for 2007 shows that all the funds on the list were in the medium-risk category and had recorded positive growth in the last five years. The unrest on the financial markets changed this situation for the 2008 list. All of the funds have a higher level of risk and seven funds are now in the high-risk category. All the funds recorded a lower return compared with previous years and, in addition, one of the funds decreased in value.

*Same funds generally the most popular over time*

The comparison also indicates that all of the funds on the 2007 Top 10 list were also on the list for 2008. No new funds were added to the latest list. The relative positions of the funds on the lower part of the list have, however, changed somewhat. Many of the funds on the 2008 list were also the top fund choices in 2000. Around 56 (61) per cent of pension savers who selected their own portfolio that year still had that original portfolio in 2008.

**Table 5.1: Top 10 fund selections among pension savers with self-selected portfolio, ranked by percentage of savers who selected that fund, year-end 2008.**

Name of fund	Risk, per cent units	Value growth 2004–2008, per cent	Investment 2000/2007	Percentage savers who selected the fund, per cent
1 AMF Pensions Aktiefond - Sverige	21.6	5	4/1	12.2
2 Swedbank Robur Contura	16.5	-5	1/2	10.7
3 AMF Pensions Aktiefond - Världen	17.9	3	2/3	9.5
4 Didner & Gerge Aktiefond	19.2	2	5/4	8.1
5 Swedbank Robur Aktiefond Pension	16.6	2	6/5	7.9
6 SKAGEN Global	18.4	10	New 2002/6	6.9
7 Swedbank Robur Medica	12.3	1	3/7	6.4
8 Carnegie Fund - Medical Sub-Fund	12.7	2	7/10	5.6
9 AMF Pensions Balansfond	10.9	5	10/9	4.6
10 SPP Generation 60-tal	16.6	0	>10/8	4.6

*Note: The percentage of savers selecting the fund is based on the pension savers who at year-end 2007 had a self-selected portfolio. Value growth is calculated as time-weighted return.*

### *18 per cent of premium pension capital was in the ten largest funds*

When the popularity of the funds is ranked according to the most capital, the Top 10 list takes on a somewhat different appearance. See table 5.2. The amount of the capital and, thus, the position on the list, is determined partly by how much pension capital was invested in the fund and partly by the performance of the fund. Around 18 per cent of the premium pension capital was invested in the ten funds with most capital. The proportion had decreased somewhat from 2007, when it was about 19 per cent.

### *Premium pension capital is slow-moving*

A comparison with the corresponding Top 10 list for 2007 indicates that eight of ten funds were also on the list for 2008. The two newcomers are Folksams Penningmarknadsfond and SPP Generation 40-tal. Eight of the ten funds on this list were also on the corresponding list for the year 2000.

**Table 5.2: Top 10 funds, by capital invested, year-end 2008, SEK million.**

Name of fund	Fund capital	Investment 2000/2007
1 AMF Pensions Aktiefond - Sverige	6 900	4/1
2 AMF Pensions Aktiefond - Världen	5 500	2/2
3 Swedbank Robur Aktiefond Pension	5 200	3/3
4 Didner & Gerge Aktiefond	4 100	5/4
5 SPP Generation 50-tal	3 900	7/6
6 SPP Generation 60-tal	3 800	8/5
7 AMF Pensions Balansfond	3 200	10/9
8 Swedbank Robur Contura	3 000	1/7
9 Folksams Penningmarknadsfond	2 800	>10
10 SPP Generation 40-tal	2 700	>10

*Note: The information on fund capital is based on total statistics on the pension savers and pensioners who at year-end 2008 had self-selected portfolios.*

## **5.3 Value growth and fund selection**

### *Interest funds gave best value growth*

A closer look at the portfolios that recorded the highest and lowest value growth respectively in 2008 and on average since year of joining shows that fixed-income funds are the commonest fund category in portfolios with the highest value growth. See table 5.3. Equities funds, on the other hand, are commonest in portfolios with the lowest value growth. Note that the tables only account for the occurrence of the fund categories and do not take into account the proportion of the pension saver's whole account taken up by a fund category.

**Table 5.3: Average value growth in 2008, the most common fund categories in the interval for the value growth, and the percentage of pension savers in the interval for value growth that have selected the fund category.**

Value growth, per cent	Fund category	Proportion savers per cent
Over 10	Sweden long (i)	38.2
	Sweden short (i)	27.0
	Sweden real interest (i)	5.6
5 to 10	Sweden long (i)	15.6
	Sweden short (i)	13.4
	Pension if less than 10 years (g)	12.7
-50 to -40	Eastern Europe (e)	10.6
	Sweden (e)	10.4
	Russia (e)	9.9
Under -50	Russia (e)	23.5
	Eastern Europe (e)	15.0
	Asia and the Far East (e)	12.0

*Note: Interest fund (i), life-cycle fund (g) and equities fund (e). The table shows the incidence of the fund categories but does not take into consideration the proportion represented by a fund in the individual's portfolio.*

## 5.4 Asset allocation and risk in portfolio

*Risk level in the portfolio of great significance for the premium pension*

Pension savers may select up to five funds when they compile their premium pension portfolio. The risk level in the portfolio depends partly on the risk level in the individual funds and partly on how these funds co-vary with each other. Portfolios with a high level of risk are expected to give a higher return than portfolios with low risk, with there also being a greater risk of a lower return. The risk level in a portfolio is the factor that has the greatest significance for the final premium pension.

This report describes portfolio risk from two perspectives. In the first perspective, the distribution between equities and fixed-income investments in the portfolio is used, known as asset allocation. A portfolio that contains a relatively large proportion of equities funds generally has a higher level of risk than a portfolio with an equal proportion of fixed-income funds. This is due to the value for equities funds normally varying more over time than the value for fixed-income funds.

In the second perspective, the risk is measured as the average standard deviation of the return from the funds included in the portfolio. The return here refers to the time-weighted return and is calculated for the 36 months prior to year-end 2008. The risk is expressed in percentage points.

## 5.4.1 Allocation of assets in portfolio

*Greater proportion of equities in The default fund (Premiesparfonden)*

The composition of funds in the premium pension portfolio reflects the level of risk that the pension saver has selected for their premium pension. In general it can be said that the greater the proportion of equities in the portfolio, the higher the level of risk. The saver also has the possibility of diversifying part of the risk in the individual funds by taking into consideration the way in which the funds co-vary with each other.

Much of the premium pension capital was invested in equities at the close of 2008, around 81 per cent of the capital. A larger percentage of the assets in The default fund were invested in equities in comparison with the self-selected portfolios, 84 (83) per cent and 77 (86) per cent respectively. See table 5.4.

**Table 5.4: Average asset allocation of premium pension capital for pension savers with self-selected portfolio and The default fund, year-end 2008, per cent.**

Type of asset	Self-selected portfolio	The default fund
Swedish equities	24.2	17.9
Global equities	41.9	50.8
Growth markets	11.1	15.0
Alternative investments	0.3	6.4
Swedish fixed income	20.0	5.2
Foreign fixed-income	2.6	4.7

*Note: Growth markets include global equities on growth markets. Alternative investments are investments outside the traditional asset classes such as property and raw materials.*

New pension savers who selected their own portfolio in 2008 followed the older savers' asset allocation, i.e. 77 (92) per cent of the pension capital was invested in equities and 23 (8) per cent in fixed-income. New savers in 2008, however, selected on average a lower percentage of equities as compared to new savers in 2007.

*Men hold higher percentage of equities than women*

Diagram 5.2 illustrates how the percentage of equities in self-selected portfolios is distributed according to the pension savers' age. The percentage of equities is relatively high for all ages, both for women and for men. In most age groups, men hold a higher percentage of equities than women, although the differences are minor.

The percentage of equities, as already mentioned, is relatively high in all age groups, even if it is lower both for the youngest and the oldest. It should be noted, however, that the percentage of equities varies quite considerably between individual pension savers, particularly among the youngest and the oldest age groups.

**Diagram 5.2: Percentage of equities in self-selected portfolios, by age and gender, year-end 2008.**



## 5.4.2 Risk in portfolio

### *Higher risk in self-selected portfolios*

The average risk level in pension savers' portfolios, measured as standard deviation from the funds' return, was around 16.1 (10.2) percentage points at year-end 2008. The risk level was higher in the self-selected portfolios than in The default fund, 16.8 (12.0) percentage points and 15.2 (7.9) percentage points respectively. The risk level in The default fund is still medium but has risen from the lower limit of the risk interval to the upper limit. The average level of risk in the self-selected portfolios, however, has risen from medium to high. The limits for the risk intervals are presented in diagram 5.3.

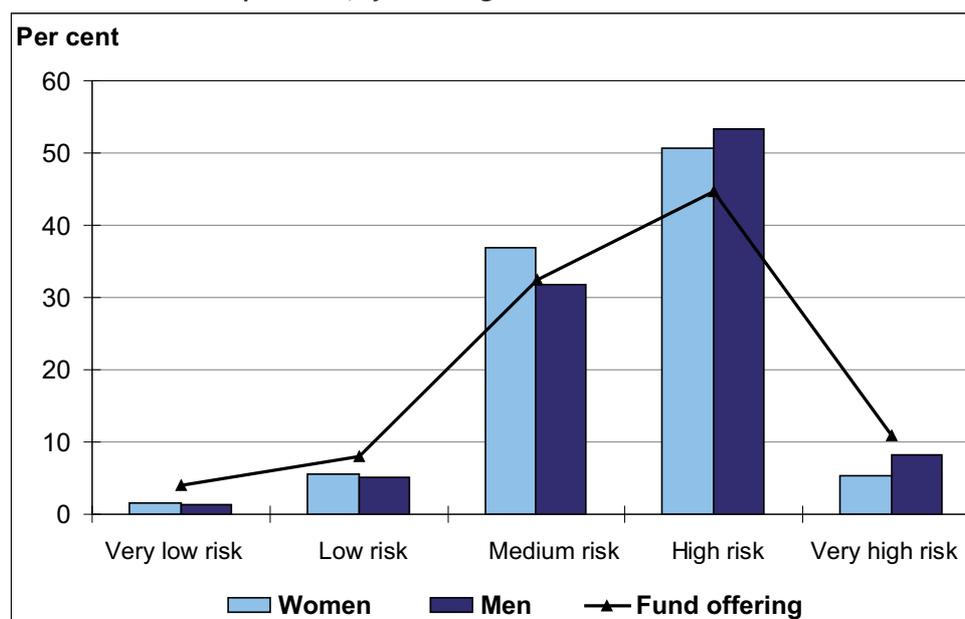
At year-end 2008, around 33 (60) per cent of pension savers had medium risk in their pension portfolio and about 53 per cent had high risk.

### *Women have lower risk in their portfolio than men*

Diagram 5.3 illustrates the distribution of portfolio risk for those who selected their own portfolio, and the distribution of risk level in the funds in PPM's fund supermarket. The five risk categories in the diagram correspond to the categories that PPM uses in the fund catalogue, i.e. very low risk, low risk, medium risk, high risk and very high risk. The diagram provides a picture of how well the risk level in pension savers' portfolios corresponds on average with the risk level in the range of funds on offer in PPM's fund supermarket. It is apparent that the distribution of the

percentage of portfolios according to the different levels of risk tallies in general with the distribution of the funds on offer according to risk category. In comparison with the funds on offer, the number of portfolios in the medium and high risk categories is over-represented, while they are under-represented in the other risk categories. The diagram indicates that women to a greater extent than men tend to select portfolios with lower risk levels.

**Diagram 5.3: Percentage of self-selected portfolios for women and men, and percentage of funds in PPM's fund supermarket, by risk categories.**



*Note: The portfolio risk is measured as the standard deviation for the portfolio's return and is expressed in percentage points. In the report, however, the standard deviation for the portfolio is calculated as the total of the standard deviations for the return on the portfolio's funds based on the funds' percentage of the portfolio. Calculations do thus not take into account any co-variation between the different funds' return. This means that the measurement tends to overestimate the portfolio's risk. The measurement period for risk is the last 36 months. Only the portfolios/funds that have a risk history of at least 36 months are included in the calculations. Similarly, only the pension savers whose portfolios/funds have a risk history of at least 36 months are included.*

*In the report, the different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

#### *Risk increased in 2008*

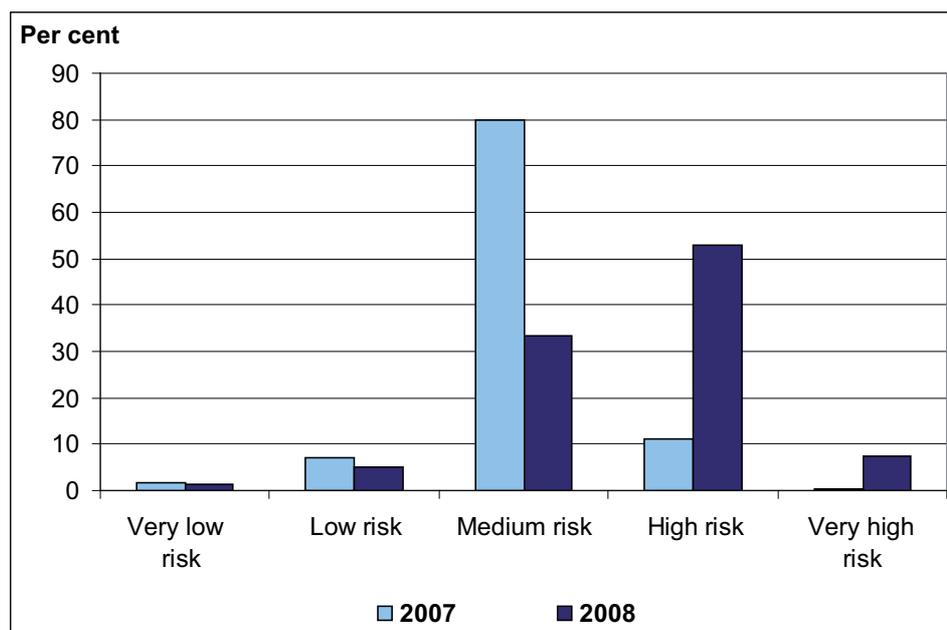
PPM has changed the interval limits for medium risk and high risk since 2007. The interval for medium risk is shorter while the interval for high risk is longer.<sup>6</sup> A comparison of the distributions between 2007 and 2008 indicates a clear shift from medium risk to high risk, both in the selected risk level and the risk level in the fund on offer, as per the risk intervals for 2008.

<sup>6</sup> In 2007 the interval for medium risk was  $8 \leq \text{risk} < 18$  and the interval for high risk  $18 \leq \text{risk} < 25$ . In 2008 the interval for medium risk was  $8 \leq \text{risk} < 16$  and the interval for high risk  $16 \leq \text{risk} < 25$ .

Diagram 5.4 shows that, in 2007, around 80 per cent of savers had medium risk in their self-selected portfolios and just over 10 per cent had high risk. The corresponding data for 2008 were just over 30 per cent and 50 per cent respectively.

In 2007, around 60 per cent of the funds on offer were in the medium risk category and around 20 per cent in the high risk category. The corresponding data for 2008 were just over 30 per cent and around 45 per cent.

**Diagram 5.4: Percentage of self-selected portfolios for pension savers in 2007 and 2008, according to risk category.**



*Note: In the report, the different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

*Increased level of risk caused by financial unrest and not by savers' activity*

As indicated further on in the report, a relatively small percentage of pension savers switch funds. This indicates that the shift from medium risk to high risk that occurred between 2007 and 2008 can be explained mainly by the risk levels in savers' portfolios having increased due to the unrest on the financial markets. It does not seem to have increased by savers actively increasing their portfolio risk.

*Medium risk and high risk are most common*

Table 5.5 illustrates the average risk level in pension savers' portfolios according to age and risk category. In all age groups, a significantly larger percentage chooses medium risk or high risk in their portfolio, while relatively few select the other risk categories.

**Table 5.5: Distribution of risk in self-selected portfolios at different ages, percentage points.**

Age	Very low risk	Low risk	Medium risk	High risk	Very high risk
18-24	1.8	6.5	36.5	39.7	15.5
25-29	1.5	3.9	36.3	47.8	10.5
30-39	1.1	2.4	29.0	60.0	7.4
40-49	1.2	2.6	28.3	61.1	6.9
50-59	1.6	6.0	38.8	46.8	6.8
60+	2.5	13.4	38.9	38.4	6.8

*Note: The different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

#### *Low risk has paid off*

Table 5.6 illustrates the average value growth in 2008 at different levels of risk in the self-selected portfolios. Table 5.7 shows the annual average for value growth since the savers' year of joining, up until 2008. It is apparent from both tables that the lower the risk the pension savers have had in their portfolios, the better the value growth has been. Corresponding tables for 2007 indicate that the relation then was the opposite, i.e. the higher the risk, the greater the increase in value. This indicates that high risk paid off in 2007 but not in 2008.

**Table 5.6: Average value growth in 2008 for pension savers with self-selected portfolio, in different categories of risk, per cent.**

	All	Women	Men
Very low risk	-6.8	-6.3	-7.5
Low risk	-6.8	-6.3	-7.4
Medium risk	-22.3	-22.3	-22.4
High risk	-32.5	-32.3	-32.7
Very high risk	-49.8	-50.0	-49.6

**Table 5.7: Annual average value growth 1995–2008 for pension savers with self-selected portfolio, in different categories of risk, per cent.**

	All	Women	Men
Very low risk	4.2	4.1	4.3
Low risk	3.2	3.1	3.2
Medium risk	-0.2	-0.2	-0.2
High risk	-1.3	-1.3	-1.2
Very high risk	-3.1	-3.5	-2.8

Table 5.8 illustrates the average risk in the portfolio for those pension savers who recorded the highest and lowest levels of value growth respectively in 2008. Those who recorded an increase in value have on average had low risk in their portfolios. It is also apparent that the greater the decrease in value, the higher the risk the saver had in the portfolio. In 2007, the relation was the opposite, i.e. the higher the value growth, the higher the risk level was in the portfolio. This indicates that high risk paid off in 2007 but not in 2008.

**Table 5.8: Average value growth in 2008 and risk in portfolio, year-end 2008.**

<b>Value growth per cent</b>	<b>Risk in portfolio, mean value, percentage point</b>
Over 0	4.2
-10 to 0	7.3
-50 to -40	23.8
Under -50	28.9

*Note: The risk in the portfolio corresponds to very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

The pension savers who had the highest annual average return since joining had, on average, a risk corresponding to medium risk in the portfolios. See table. 5.9. The savers who recorded the greatest decrease in value, on the other hand, had on average a very high risk in their portfolios.

**Table 5.9: Annual average value growth 1995–2008 and risk in portfolio at year-end 2008.**

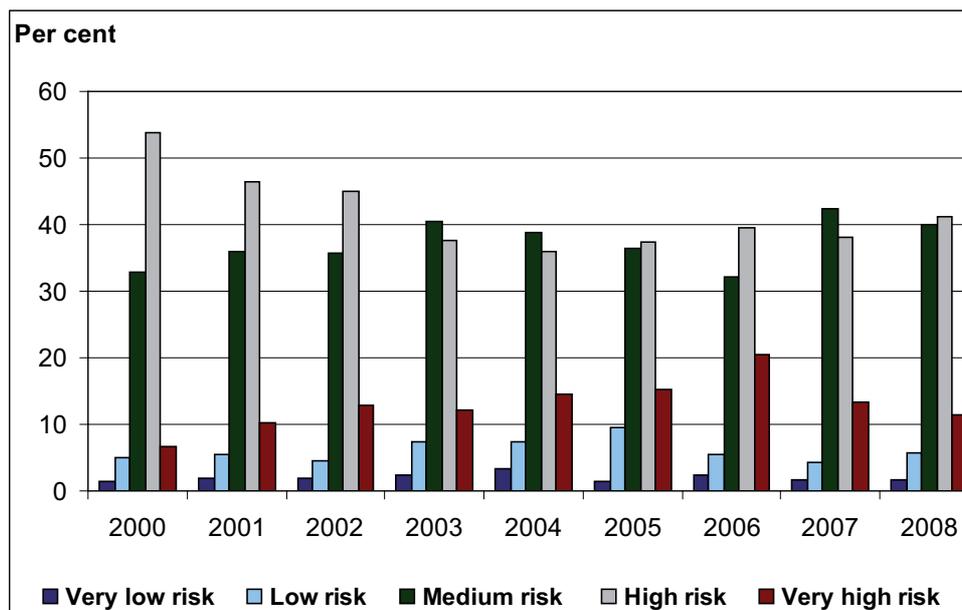
<b>Value growth, per cent</b>	<b>Risk in portfolio, mean value, percentage point</b>
Over 10	9
5 to 10	10
-15 to -10	28
Under -15	31

*Note: The risk in the portfolio corresponds to very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

### *Risk and year of joining*

Diagram 5.5 illustrates the average level of risk in the portfolio after the pension savers' year of joining. It is apparent that the savers who joined the premium pension system in 2000 selected, to a greater extent than other savers, a medium level of risk in their portfolios. The differences in level of risk between pension savers who joined in 2007 and 2008 are marginal.

**Diagram 5.5: Average level of risk in self-selected portfolios, by year of joining, at year-end 2008.**



## **5.5 Level of fees in portfolio**

### *Fee plays significant role for future premium pension*

The size of the fund fee differs between the funds. In general, funds with higher levels of risk also charge higher fees. For instance, equities funds often have higher fees than fixed-income funds, and funds with active management usually have higher fees than index funds.

The portfolio fee is the weighted average of the fund fees, after discounts, that the fund management companies charge for those funds that are included in the pension saver's portfolio.<sup>7</sup> In the long term, the level of fee is of great significance for the pension outcome. A fee of, for instance, 0.5 per cent reduces the pension in the long term by around 15 per cent in relation to a portfolio without fees.<sup>8</sup>

<sup>7</sup> PPM operates a discount model to enable pension savers and pensioners to benefit from the cost advantages in asset management that the premium pension system generates. Information on the discount model can be found in the Annual Report of the Premium Pension Authority for 2008.

<sup>8</sup> An investment of SEK 1 is held in the pension saver's portfolio for an average of 33 years.

*PPM's discount model gives higher premium pension*

The level of the average fee after discount for the whole collective of pension savers has decreased since 2007, from 0.31 per cent to 0.26 per cent in 2008.<sup>9</sup> The fee for The default fund is unchanged at 0.15 per cent, while the average fee for those who selected a portfolio of their own decreased from 0.41 per cent to 0.34 per cent.

The decrease is largely attributable to the new discount model introduced by PPM in 2007. Since the introduction of the discount model, the average fee for self-selected portfolios has decreased by 0.19 percentage points. The reduced fee means that the future premium pension will on average be 6 per cent higher, all other factors being equal.

All in all, PPM's discount demands are estimated to result in a fee that is 0.3–0.5 percentage points lower. In the long term, this is estimated to give a 10–15 per cent higher pension.

Another possible explanation for the average portfolio fee having decreased during the year is that the active savers increased the percentage of interest-bearing securities in their portfolios. (See section 6.5.3). As fixed-income funds in general have lower management fees than equities funds, this can have contributed to the reduction in the average fee.

*5 per cent of those with self-selected portfolios pay a fee of more than 0.67 per cent*

Table 5.10 indicates that 5 per cent of those with self-selected portfolios pay a fee higher than 0.67 (0.90) per cent (see 95th percentile). These pension savers receive a pension that is at least 10 per cent lower than the average among savers with self-selected portfolios, all other factors being equal.

It is also apparent from the table that women have a lower average portfolio fee than men, 0.33 (0.40) per cent and 0.35 (0.43) per cent respectively, and that older pension savers have lower average fees than younger savers.

**Table 5.10: Portfolio fee in self-selected portfolios 2008, per cent.**

	Mean value	Median	5th percentile	95th percentile
<b>All</b>	0.34	0.30	0.18	0.67
Women	0.33	0.28	0.18	0.64
Men	0.35	0.31	0.18	0.69
<b>Age</b>				
18-24	0.39	0.34	0.17	0.74
25-29	0.39	0.34	0.18	0.74
30-39	0.38	0.35	0.18	0.70
40-49	0.36	0.33	0.18	0.68
50-59	0.34	0.30	0.18	0.67
60-	0.32	0.26	0.16	0.67

<sup>9</sup> It is apparent from the Annual Report for the Premium Pension Authority for 2008 that the average fee in the portfolio decreased from 0.33 per cent in 2007 to 0.30 per cent in 2008. The differences between the data in the Annual Report and in this report are partly due to different samples and partly to different methods of calculation.

## 6 PPM pension savers' activity

This chapter describes pension savers' activity as regards portfolio selection on joining the premium pension system, and number of fund switches. Balance of account, value growth, risk level and portfolio fees relating to different numbers of fund switches are also covered here.

### 6.1 Percentage with self-selected portfolio or The default fund

*58 per cent of savers have self-selected portfolio*

If pension savers do not notify any fund selection, pension savings are invested in The default fund (Premiesparfonden). At year-end 2008, around 58 (59) per cent of pension savers had a self-selected portfolio, while the rest had their savings in The default fund. See table 6.1. A slightly greater percentage of women than men had a self-selected portfolio, around 59 (59) per cent and 58 (58) per cent respectively.

**Table 6.1: Pension savers with self-selected portfolio or The default fund, year-end 2008, per cent.**

	All	Women	Men
Self-selected portfolio 2008	58.2	58.9	57.5
The default fund 2008	41.8	41.1	42.5

### 6.2 Selection on joining the premium pension system

*Only 1.6 per cent of new savers select their own portfolio*

As shown in table 6.2, pension savers' behaviour on joining the premium pension system has changed over time. In 2008, 1.6 (1.6) per cent of new savers selected their own portfolio on joining. This can be compared with 67 per cent for the first fund selection in 2000.

The large percentage of pension savers who selected their own portfolio on joining in 2000 can probably be explained by the fact that an extensive information campaign was run to encourage as many as possible to select their own portfolio. At the same time, the fund selection process attracted considerable mass media coverage. In addition, most pension savers had more capital to invest since the capital consisted of accumulated pension entitlements for the period 1995–1998. The overall effect was probably to persuade a large percentage of pension savers to make an active choice and select their own portfolio.

*Altered communication strategy resulted in lower level of participation*

It is interesting to note that the percentage that selected their own portfolio on joining showed a marked decrease between 2006 and 2007. See table 6.2. This is probably due to PPM having altered its communication strategy at that point. In previous years, shortly after mailing its value statement, PPM has sent a “selection package” to all new pension savers, containing a fund selection form, a guide to fund selection and a fund directory. New pension savers in 2007 instead received information along with their value statement, advising them that a fund selection form and fund directory were available to order from PPM via Customer Services or from [www.ppm.nu](http://www.ppm.nu).

The reason for PPM altering its communication strategy was that the level of participation in the selection was deemed low in relation to the information campaign. PPM now conducts special information campaigns addressed at new savers who have been in the system for a while. These initiatives are considered to be more cost-effective.

The table also indicates that, of the total number of pension savers with a self-selected portfolio who were in the premium pension system in 2008, around 50 (52) per cent had selected their own portfolio on joining the system. This means that, of the 58.2 per cent of pension savers with self-selected portfolios, half selected their own portfolio on joining the premium pension system.

**Table 6.2: Percentage of pension savers selecting their own portfolio on joining, and number of new pension savers, by all, women, men and year of joining, 2000–2008**

Year	Number of pension savers with self-selected portfolio on joining			Number of new pension savers, thousands
	Total, per cent	Women, per cent	Men, per cent	
2008	1.6	1.4	1.8	163
2007	1.6	1.6	1.7	133
2006	7.4	7.4	7.5	115
2005	8.0	8.3	7.7	117
2004	9.4	9.3	9.5	129
2003	8.4	8.4	8.3	150
2002	14.0	14.0	14.3	196
2001	18.0	18.2	16.8	493
2000	67.0	68.0	66.0	4 420
Average 2008	50.1	51.0	49.3	

*Those with higher education or higher income select own portfolio more often*

Table 6.3 illustrates that the higher the education and income, the greater the percentage of pension savers that select their own portfolio on joining the pension system.

Note that the pension savers who have come to Sweden from countries outside the Nordic region select to a much smaller extent their own portfolio than savers from Sweden and other Nordic countries.

**Table 6.3: Proportion of pension savers selecting own portfolio on joining 2000–2008, by gender, education, income and country of birth, per cent.**

	<b>Self-selected portfolio</b>
<b>All</b>	50.1
Men	49.3
Women	51.0
<b>Education*</b>	
Pre-upper secondary	38.2
Upper secondary	52.6
Post-upper secondary	56.1
Post graduate studies	56.1
<b>Annual income, SEK thousands**</b>	
0	23.8
1-50	15.6
50-100	21.4
100-200	40.0
200-300	56.3
300-349	63.1
349+	68.5
<b>Country of birth</b>	
Sweden	54.3
Nordic region (except Sweden)	51.2
Other	26.2

*Note: \*There are shortcomings in the database of educational qualifications, involving a considerable loss of information. For instance, the database has no information on the educational qualifications gained by immigrants in their country of origin. Nor is there any data about certain types of education such as Komvux adult education and vocational training. In addition, updating of the database is subject to a time lag, which affects, above all, younger categories that have recently left upper secondary school.*

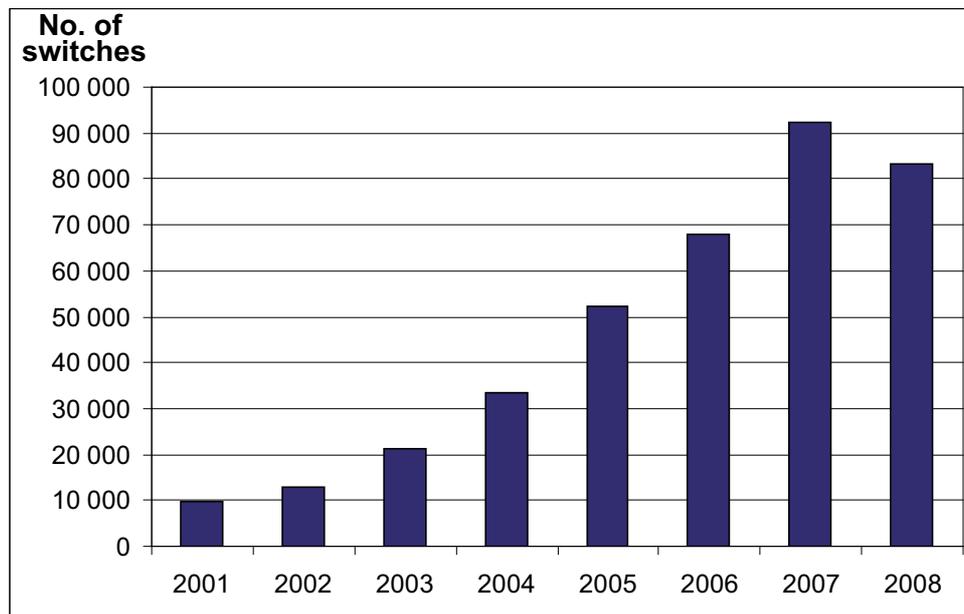
*\*\*Annual income is based on information on pension savers' earned pension entitlements for 2007.*

## **6.3 Outflow of pension savers and pensioners from The default fund**

### *Annual net inflow to The default fund*

Most of those whose savings have been invested in The default fund choose to retain the fund, i.e. there is an annual net inflow of people into the fund. At year-end 2008, the proportion of pension savers still with The default fund was 85 (86) per cent. This figure decreases, however, along with an increasing number of people choosing to leave the fund. Diagram 6.1 indicates that the number of people leaving The default fund has increased continuously over time, with the exception of 2008 when the number fell to around 83 400 (92 300).

**Diagram 6.1: Number of pension savers and pensioners per annum who switch from The default fund to a self-selected portfolio.**



*Note: The diagram presents data for the period 1 January–31 December each year. For 2001, however, there are details only from February to December. This is due to data prior to January 2001 not being correct. With the very first fund selection in the premium pension system in 2000, a number of errors occurred during completion of fund selection forms. As a result, a relatively large group of pension savers were temporarily placed with The default fund until the errors were rectified.*

## **6.4 Those with self-selected portfolio and who have only made an active selection after the year of joining**

*57 per cent of those with self-selected portfolio have never made a fund switch*

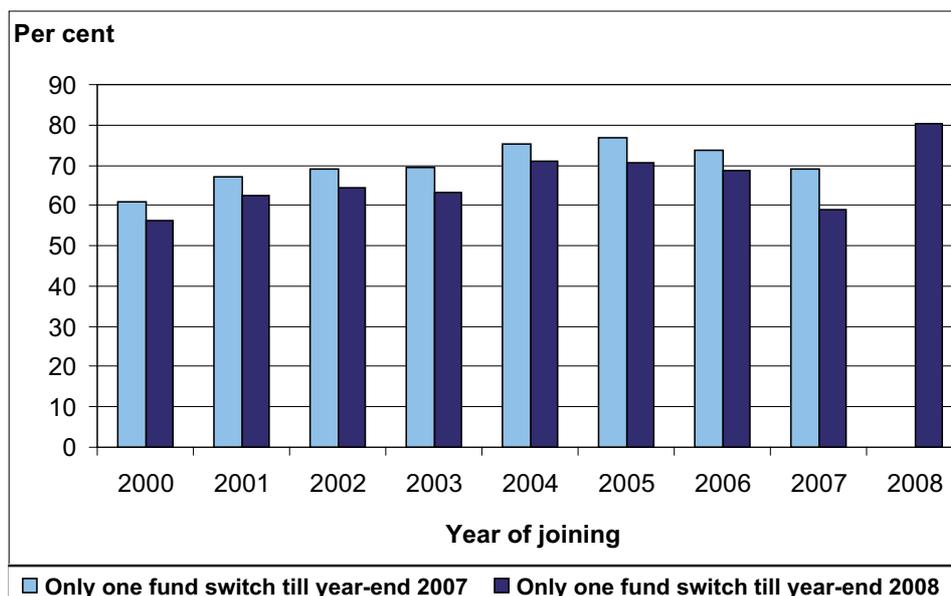
Of the pension savers who have selected their own portfolio on joining, there are many who have not made a fund switch since then. Around 57 (61) per cent of these people still have their pension savings in this first portfolio.

Diagram 6.2 compares the percentage of pension savers who selected their own portfolio during the year of joining and who still had it at year-end 2008 with the corresponding percentage of pension savers at year-end 2007. The percentage that did not make any fund switch, as per year of joining, has decreased since 2007.

*Established pension savers are more inclined to switch funds*

The diagram also indicates that those pension savers who have been in the system for longer, i.e. those with early years of joining, tend to select new funds to a greater extent than those who have entered the system later. This is natural as the risk profile usually changes with age. During 2007 and 2008, relatively few savers selected their own portfolio. Minor changes in number result in major percentage changes.

**Diagram 6.2: Proportion with self-selected portfolio on joining and who only made one fund switch since joining, up to year-end 2007 and 2008 respectively.**



*Women and lower earners often still have the original portfolio*

Among pension-saving women, the percentage who had not made any fund switch after the first selection was slightly greater than the corresponding percentage of men. Savers with lower incomes also still had, to a greater extent, the original portfolio than savers with higher incomes.

In the same way, those with less education tend to still have the original portfolio to a greater extent than those with higher education. The percentage not having made any fund switch decreases with age, with the exception of the oldest age groups.

## 6.5 Number of fund switches

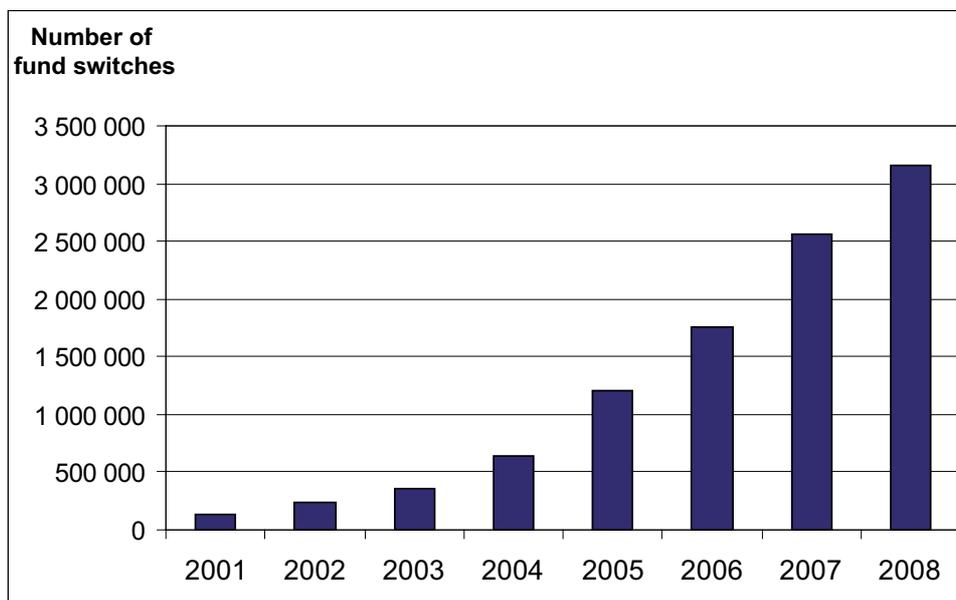
*Fund management companies behind much of the increased fund trading*

Within the premium pension system, pension savers can buy and sell funds on an almost daily basis and without being charged transaction fees. A total of 3.2 (2.6) million fund switches were made in 2008.

The number of switches has increased significantly over time, as is apparent from diagram 6.3. In 2008, the number increased by 24 (45) per cent. Much of the increase can probably be attributed to the fund management companies that in recent years have regularly, for a fee, performed fund switches for their clients. Around 1.4 million, or almost 44 (25) per cent of all fund switches in 2008 are estimated to have been performed by these fund management companies.

The fees for management services are generally high. The average fee is around SEK 500 per annum, which corresponds to 1.2 per cent of the average pension saver's credit balance. With this annual fee and an investment horizon of approximately 30 years, the service needs to give a surplus yield equivalent to about 30 per cent for the saver to regain the fee.

**Diagram 6.3: Number of fund switches per annum in the premium pension system**



*A small percentage of pension savers represent a large percentage of fund switches*

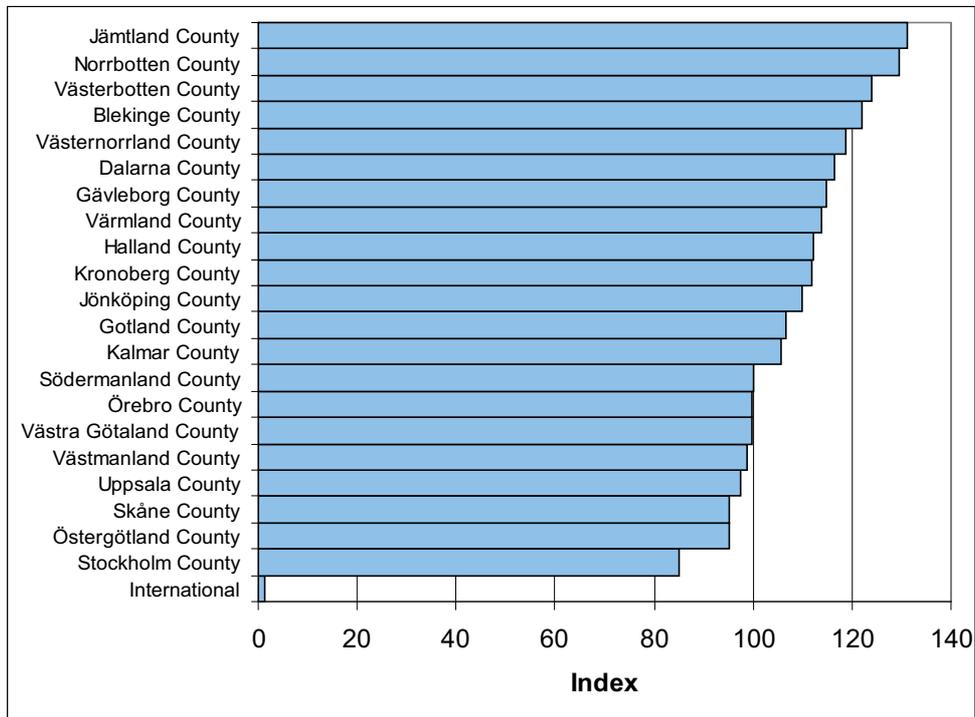
In 2008, around 722,000 (777,000) pension savers, including pensioners, switched funds on at least one occasion, which is equivalent to 12 (14) per cent of the pension community. Of those pension savers with a self-selected portfolio, 23 per cent switched funds during the year. This indicates that a relatively small proportion of pension savers account for the fund trading in the system.

Around 30 (27) per cent of all pension savers had made at least one fund switch since joining the premium pension system up until year-end 2008. Among the savers who had selected a portfolio of their own on joining and among those who originally had The default fund, the corresponding percentages were 43 (39) and 12 (14) respectively.

*Savers from Jämtland are the most active*

Diagram 6.4 illustrates the activity of pension savers in different counties. The columns indicate the percentage of pension savers that were active in 2008, and switched funds at least once, in relation to the percentage of pension savers resident in the county. When the index is 100 it means that the percentage of active savers is as great as the percentage of savers resident in the county. As is apparent from the diagram, the pension savers in Jämtland County are the most active.

**Diagram 6.4: Percentage of pension savers who switched fund at least once in 2008 in relation to the percentage of pension savers resident in the respective county.**



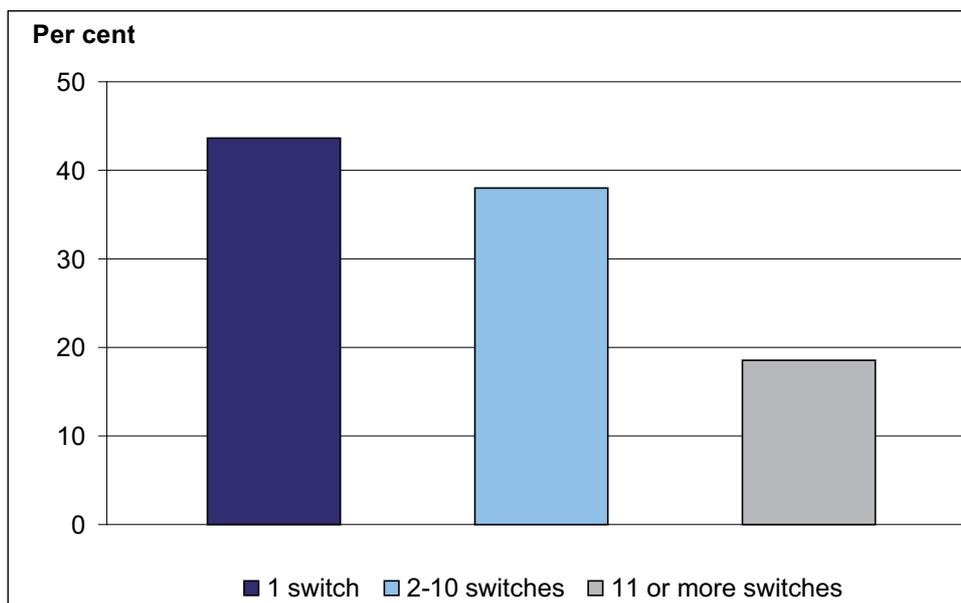
### 6.5.1 Number of fund switches after year of joining

*More than 40 per cent have only made one fund switch since joining*

Diagram 6.5 illustrates how many fund switches pension savers with a self-selected portfolio have made since joining the premium pension system. The category “1 switch” includes those savers who had The default fund on joining and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.

More than 40 per cent of those who had their own portfolio and who at some point have switched funds have only made one switch since their first active fund selection. Almost 20 per cent have made 11 or more fund switches since their first selection. A somewhat larger percentage of women than men have only made one switch.

**Diagram 6.5: Pension savers with self-selected portfolio, by number of fund switches made after year of entry up to year-end 2008.**



*Note: The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

## 6.5.2 Number of fund switches and credit balance

*Savers with higher credit balance make more fund switches*

Table 6.4 indicates that those who have switched funds also have a higher average balance in their premium pension account. Similarly, those who have made more switches have a higher credit balance than those who have made fewer switches. The difference in account balance between those making only one fund switch and those making more than 10 fund switches averages SEK 18,200 (19,000).

A previous analysis conducted by PPM indicates that the probability of selecting a portfolio of one’s own increases the greater the credit balance the pension saver has.<sup>10</sup>

<sup>10</sup> What distinguishes individuals who switch The default fund? D.no. 06-21.

**Table 6.4: Annual average balance in the premium pension account at year-end 2008, by number of fund switches made after year of joining, for pension savers with self-selected portfolio, SEK.**

<b>No. of switches since joining</b>	<b>Account balance, mean value</b>	<b>Proportion pension savers, per cent</b>
0	50 700	49.0
1	49 300	22.3
2-10	55 400	19.4
11-20	64 600	5.7
21-50	70 000	3.3
More than 50	91 000	0.4

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The “1 switch” category includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

### **6.5.3 Number of fund switches and value growth**

*Active savers have had higher value growth since start*

Table 6.5 indicates that those who made more switches since the start also recorded higher value growth than others. A contributory reason for it being profitable to make many fund switches is that no fee is charged for switching.

**Table 6.5: Annual average value growth for the period 1995–2008, by number of fund switches after year of joining, for pension savers with self-selected portfolio, per cent.**

<b>No. of switches since joining</b>	<b>Value growth, annual average 1995–2008</b>	<b>Proportion pension savers, per cent</b>
0	-0.8	49.0
1	-1.4	22.3
2-10	-0.8	19.4
11-20	0.8	5.7
21-50	1.8	3.3
More than 50	5.3	0.4

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter only made one fund switch.*

*The most active reduced the risk in 2008 and recorded the best value growth*

Table 6.6 presents the number of fund switches made in 2008. It is apparent from the table that, of those pension savers with a self-selected portfolio, 23 per cent switched funds during the year. A comparison between this table and corresponding data for 2007 indicates that the most active savers reduced the risk level in their portfolios in 2008 by transferring their capital to funds with a greater element of interest-bearing securities. This has benefited them in the form of better value growth than other savers recorded. They had the smallest value decreases in 2008. Since joining and up until 2008, they even recorded an annual average value growth. This group also recorded the greatest value growth in 2007, on average as well as from the start.

**Table 6.6: Average value growth for 2008 and annual average value growth since year of joining and up until 2008, by number of fund switches made in 2008, for pension savers with self-selected portfolio, per cent.**

No. of switches 2008	Value growth, average 2008	Annual value growth, average	Percentage interest-bearing securities in portfolio	Risk in portfolio, average 2008, per cent	Percentage savers in each category
0	-29.3	-0.9	15	17.1	77.4
1	-30.0	-0.9	31	16.6	7.8
2-5	-26.6	0.2	50	14.6	8.3
6-10	-22.8	0.8	31	15.1	4.8
11-20	-22.5	1.6	51	13.6	1.4
More than 20	-10.5	4.6	89	5.9	0.3

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

*The different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

## 6.5.4 Number of fund switches and risk in portfolio

*Most savers have high risk in their portfolios*

Apart from the pension savers who made 11 or more fund switches, most savers have high risk in their portfolios. See table 6.7. The greatest percentage of pension savers with high risk in their portfolios is in the “0 switch” category, i.e. the group that had not made any switches at all since joining the premium pension system. In this group, around 57 per cent have high risk in their portfolio. This can be compared with 53 per cent for the total of all pension savers with a self-selected portfolio. See section 5.4.2.

*The most active savers have decreased the risk in their portfolio*

It is interesting to note that the group with the greatest proportion having high or very high risk in their portfolio are also found among those who made 2–10 fund switches. In that group, around 53 per cent have high or very high risk. This can be compared with the corresponding figure for 2007, which was around 26 per cent.

The group that made 11 or more switches seemed, however, to decrease the risk in their portfolio. In 2007, 33 per cent of them had high or very high risk in their portfolio, while the corresponding figure for 2008 is 31 per cent.

This indicates that it is mainly the most active pension savers who are the most inclined to react to market changes. This group, however, only represents 9 per cent of the savers who have a self-selected portfolio.

**Table 6.7: Risk level at different numbers of fund switches made after the first active selection, for pension savers with self-selected portfolio, percentage points.**

Risk level	0 switch	1 switch	2–10 switches	11 or more switches
Very low risk	0.7	1.6	3.6	7.5
Low risk	3.3	7.7	7.7	13.7
Medium risk	36.2	29.3	25.0	41.3
High risk	57.3	50.1	40.1	26.0
Very high risk	2.6	11.3	23.7	11.4

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

*The different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

## 6.5.5 Number of fund switches and portfolio fee

*Active savers paid more fees*

In the section above on the fee level in pension savers’ portfolios, it is apparent that the average fee for those with a self-selected portfolio was 0.34 (0.41) per cent at year-end 2008. Table 6.8 indicates that the average fee level for those who only made one fund switch after the first active selection was somewhat lower, around 0.33 (0.39) per cent. The average fee level, however, is significantly higher among those who made more than one fund switch.

*Transfer to fixed-income funds has reduced fee level*

Data on the number of fund switches and portfolio fees for 2007 show that the pattern has partly changed. Those who made 2 or more switches in 2007 also had a higher fee on average than those who made fewer switches, as in 2008. In 2007, however, those who made 11 or more switches had a considerably higher portfolio fee than other savers. The differences in fee level between the different groups were much less in 2008. The differences between those who made 2-10 switches and those who made 11 or more switches are marginal.

Data from 2007 show that it was common then that those who had made many switches had also selected funds with a relatively high level of risk. Funds with higher levels of risk are often focused on growth markets or other lesser segments on the capital market. Higher fees usually accompany such management. Table 6.8 indicates, however, that those who made many switches also had a greater proportion of interest-bearing securities in their portfolios. It may be the case that during the year they left the high-risk alternatives for funds with less risk and lower management fees.

**Table 6.8: Annual average portfolio fee, by number of fund switches made after the first active selection, for pension savers with self-selected portfolio, per cent.**

	<b>1 switch</b>	<b>2 –10 switches</b>	<b>11 or more switches</b>
<b>All</b>	0.33	0.42	0.42
Women	0.32	0.41	0.41
Men	0.35	0.44	0.43
<b>Age</b>			
18-24	0.35	0.42	0.44
25-29	0.34	0.44	0.45
30-39	0.35	0.45	0.44
40-49	0.33	0.43	0.43
50-59	0.32	0.41	0.40
60-	0.31	0.39	0.39

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

# Pensioners

## 7 Balance in premium pension account and distribution of capital

This chapter presents the average balance in the pensioners' premium pension accounts and how their fund assets are distributed between self-selected portfolios and The default fund (Premiesparfonden). The chapter also examines the average age of the pensioners and shows the percentage of pensioners who selected their own portfolio, The default fund and with profit annuities.

### *550,000 pensioners and SEK 10.5 billion in capital*

There are more than 550,000 pensioners in the premium pension system. Of the total fund assets, the pensioners' share is almost 4 per cent, which is equivalent to around SEK 8.8 billion. A further SEK 1.7 billion is invested in the with profit annuities business.

### *SEK 18,800 average credit balance*

The average balance in the pensioners' premium pension accounts decreased in 2008 and amounted at year-end to around SEK 18,800 (22,700). The decrease is explained mainly by the negative value growth in unit-linked insurance in 2008. The balance does decrease through the pensioners making withdrawals during the year, but this had a relatively minor effect.

### *Holders of with profit annuities had higher credit balance*

At year-end 2007, the average credit balance was approximately the same for the with profit annuities business and for the unit-linked insurance business. At the close of 2008, however, the average balance was higher in the with profit annuities business than in the unit-linked insurance business, SEK 25,200 (22,700) compared with SEK 17,900 (22,800). The difference is due to the balance in the with profit annuities business having increased while the balance in the unit-linked insurance business decreased.

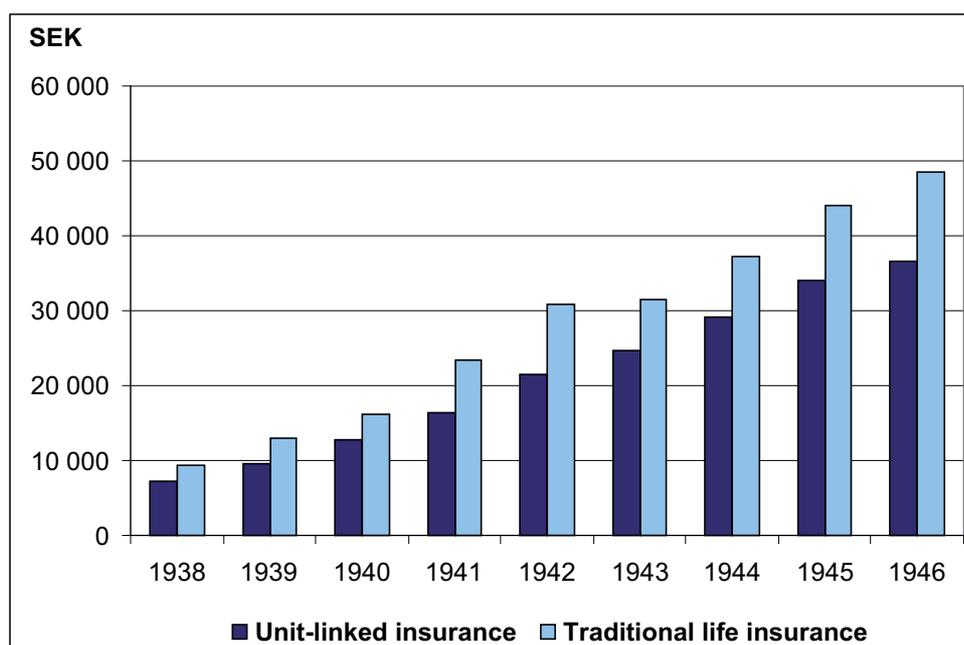
It is apparent from diagram 7.1 that the average credit balance, by year of birth, is consistently higher for pensioners holding with profit annuities than for those with unit-linked insurance. One explanation for this can be that the portfolio composition for with profit annuities is more cautious than for unit-linked insurance, and this paid off in 2008. In 2007, the credit balance was consistently higher for those with unit-linked insurance.

*Younger pensioners have more in their accounts than older ones*

Diagram 7.1 also indicates that the average balance is higher for younger pensioners than for older pensioners. The main explanations for this difference are that they are covered to a different extent by the new pension system and that different amounts have therefore been allocated to the premium pension system. For example, 20 per cent is allocated to the new pension system for pensioners born in 1938, while the corresponding figure for those born in 1946 is 60 per cent. In addition, the number of years in which allocations are made is greater for the younger pensioners, so they generally have more in their accounts.

Another explanation for the younger pensioners having a higher credit balance is that the older ones probably withdrew more from their pension accounts. It can also be mentioned in this context that the credit balance is affected by the age at which withdrawals commenced. An individual making withdrawals at the age of 61 will naturally have less left in their account than an individual who starts making withdrawals at the age of 67, depending on the size of the withdrawal. In addition to this, the credit balance is affected if the pensioner continues in employment and earns new pension entitlements. The credit balance increases, of course, the more deposits that are made and the larger they are.

**Diagram 7.1: Average balance in premium pension account, for pensioners holding unit-linked insurance and with profit annuities respectively, by year of birth, at year-end 2008.**



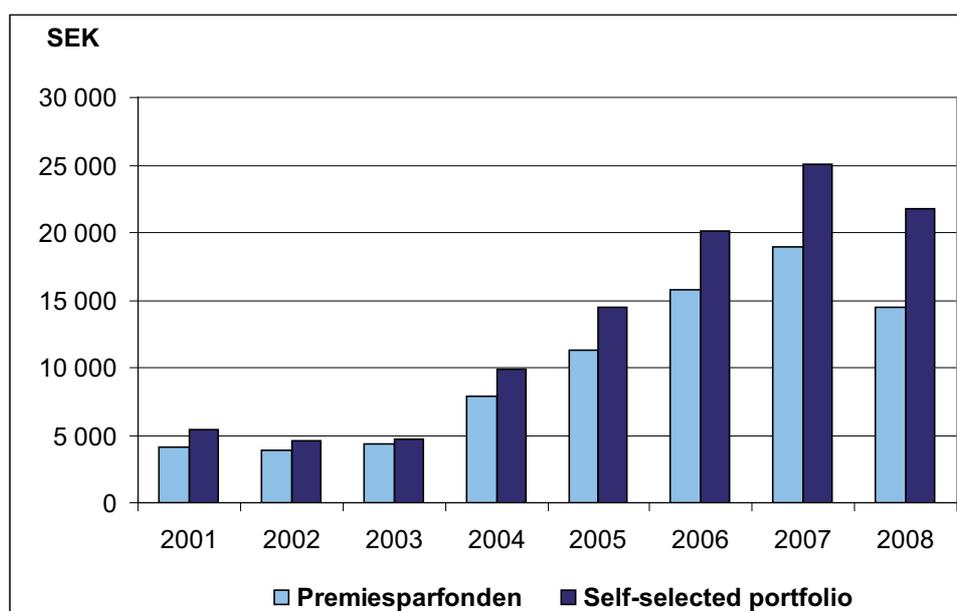
*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

*Those with self-selected portfolio have more in their account than those with The default fund*

The average credit balance is consistently higher for pensioners with a self-selected portfolio than for those with The default fund. See diagram 7.2. Furthermore, the differences have increased in recent years. In 2001, the average credit balance for those with The default fund was 75 per cent of the average credit balance for those with a self-selected portfolio. At year-end 2008, the corresponding relation was 66 per cent.

One reason for those with a self-selected portfolio having more in their accounts, and for the differences increasing over time, can be that it is mainly the younger pensioners who choose to have their own portfolio. See table 7.2. The younger pensioners, as already mentioned, have on the one hand allocated a larger percentage of their pension entitlements to the premium pension system and, on the other hand, have allocated savings during a longer period than the older pensioners. The younger ones have also withdrawn their premium pension during a shorter period.

**Diagram 7.2: Average balance in the premium pension account for pensioners with self-selected portfolio and The default fund respectively**

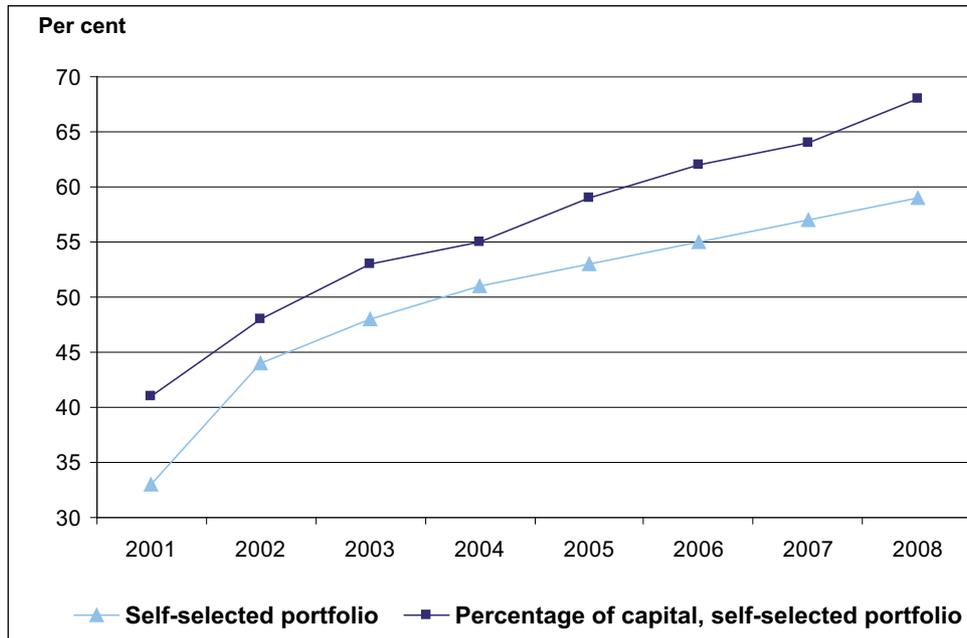


*Increasing number of pensioners select own portfolio*

An increasing proportion of pensioners choose to have their own portfolio. See diagram 7.3. Furthermore, their percentage of the unit-linked insurance capital (among pensioners) increases over time.

The explanation for their increasing share of the capital, apart from there being more of them, could be that it is mainly younger pensioners who have a self-selected portfolio. See table 7.2. As already mentioned, this group of pensioners has on average more capital in their accounts than other pensioners. A contributory explanation could be that those with their own portfolio have on average recorded better value growth than savers with The default fund.

**Diagram 7.3: Percentage of pensioners with self-selected portfolio and their share of the pensioners' unit-linked insurance capital.**



*Low average age among pensioners*

The average age for pensioners in the premium pension system is 67. The low age is due to the oldest pensioners, those born prior to 1938, not being covered by the premium pension system. Along with the pension system being phased in, the average age will rise. In 2007 the average age was 65.

*More pensioners have unit-linked insurance than with profit annuities*

A pensioner can choose between retaining their premium pension capital in their self-selected portfolio or in The default fund, i.e. retaining the unit-linked insurance, or investing their pension capital in PPM's with profit annuities. As is apparent from table 7.1, most pensioners, more than 87 (87) per cent, have chosen to retain the unit-linked insurance. Among these pensioners, almost 59 (57) per cent selected their own portfolio while the rest have The default fund. The percentage of pensioners with traditional life insurance has increased somewhat over time, from around 9 per cent in 2001 to almost 13 per cent in 2008.

**Table 7.1: Number of pensioners and percentage of pensioners with premium pension invested in unit-linked insurance and with profit annuities respectively, for 2001–2008.**

Year	Total number	Self-selected portfolio, per cent	The default fund, per cent	With profit annuity, per cent
2001	2 700	32.8	58.2	9.1
2002	9 600	47.5	44.6	8.7
2003	78 600	45.6	47.1	8.0
2004	160 400	50.1	42.4	8.0
2005	249 700	48.7	37.4	10.4
2006	343 500	51.3	32.6	11.9
2007	448 700	53.9	31.8	12.6
2008	558 300	55.7	30.4	12.6

*More common for younger pensioners to have self-selected portfolio*

Table 7.2 illustrates the percentage of pensioners with self-selected portfolio, The default fund or with profit annuity, by age. As is apparent from the table, the percentage of pensioners with a self-selected portfolio is higher among the younger pensioners than the older ones.

**Table 7.2 Percentage of pensioners who invested their premium pension capital in a self-selected portfolio, The default fund, or in with profit annuity, by year of birth.**

Year of birth	Age	Self-selected portfolio	The default fund	With profit annuity
1938	70	41.7	50.7	7.5
1939	69	44.4	46.8	8.8
1940	68	41.5	44.7	13.8
1941	67	44.8	39.2	16.0
1942	66	46.7	38.6	14.7
1943	65	50.5	35.5	14.0
1944	64	56.7	30.0	13.3
1945	63	59.8	27.8	12.4
1946	62	60.2	32.0	7.8
1947	61	60.5	28.8	10.7

## 8 Value growth for pensioners

This chapter on value growth consists of two parts. The first describes the value growth for pensioners for the calendar year 2008, while the second illustrates the value growth since the start of the premium pension system in 1995 until year-end 2008.

The value growth for pensioners with *unit-linked insurance* takes into consideration the pension entitlements that had been paid in, the interest on preliminary pension entitlements, the return on the pensioners' funds, the fee to PPM, the fund fee, the discount on the fund fee, and the inheritance gains. Value growth is presented in the form of internal rate of return. The internal rate of return can be compared with the interest that should have generated the balance in the premium pension account if the corresponding sum of earned pension entitlements had instead been deposited in a bank account. A more detailed description of the value growth measurement is given in the appendix.

The return on the *with profit annuities business* is also calculated in the form of bonus interest. This interest can be altered at the turn of each month depending on how well the investments in the life insurance develop. The pensioners, however, are guaranteed a minimum pension amount.

### 8.1 Value growth for pensioners 2008

*Value growth for unit-linked insurance was -28.4 per cent*

The sharp downturn on the Swedish and foreign equities markets also affected the value growth of unit-linked insurance for pensioners. In 2008, the average value growth for unit-linked insurance was -28.4 (5.8) per cent. See table 8.1. The decrease in value of the pension capital in self-selected funds was on average somewhat lower than for pension capital invested in The default fund (Premiesparfonden), -24.4 (5.8) per cent compared to -34.0 (5.8) per cent.

One explanation for the downturn in the stock market having such a major effect on value growth is that pensioners have a relatively large percentage of unit-linked insurance assets invested in equities, around 76 (78) per cent. The return on pension capital is thus very dependent on the trend on the equities markets.

*Better value growth in with profit annuity*

Table 8.1 indicates that those who have had with profit annuity throughout have recorded better value growth compared to those with unit-linked insurance.

*Average bonus interest was 2.2 per cent*

For pensioners holding with profit annuity, bonus interest amounted in December 2008 to 0 (5.0) per cent and on average for the year to 2.2 (5.7) per cent.

*Value growth for assets in the with profit annuities business was -2.0 per cent*

The value of the total assets in the with profit annuities business increased from SEK 1,288 million in 2007 to SEK 1,738 million at year-end 2008. The assets increased since the premiums paid were greater than the pension payments.

The return on the insurance's assets, however, was negative for the year, -2.0 (3.8) per cent. The return was negative but nevertheless significantly higher than the return for unit-linked insurance.

One explanation for the return on the with profit annuities business being higher than for the unit-linked insurance business is that a large proportion of these assets are invested in interest-bearing securities. Around 73 per cent of the assets are invested in the Swedish fixed-income market, while the remaining assets are invested in equities. As indicated in chapter 2, the Swedish fixed-income market has recorded relatively stable, positive value growth throughout the whole of the 2000s, unlike the equities markets, which fell dramatically in 2008.

*Women have had a better return than men*

Women with a self-selected portfolio recorded on average a somewhat lower average value growth than the corresponding group of men, -23.1 per cent as compared with -25.7 per cent.

Later in the report it is shown that, in 2008, women generally had a somewhat lower level of risk in their portfolios than men. This can be an explanation of why women with a self-selected portfolio had a somewhat better return during this year of financial unrest. However, to come to any conclusions about possible differences between men's and women's investment behaviour, an in-depth analysis is required.

Generally speaking, women also had a lower level of portfolio risk in 2007. In 2008, however, women with a self-selected portfolio recorded lower average value growth than the corresponding group of men, 5.4 per cent as compared with 6.1 per cent.

**Table 8.1: Average value growth (internal interest) in 2008, by year of birth, per cent.**

	All	Unit-linked insurance	Self-selected portfolio	The default fund	With profit annuity
<b>All</b>	-24.7	-28.4	-24.4	-34.0	0.8
Women	-24.1	-27.7	-23.1	-34.1	0.9
Men	-25.3	-29.1	-25.7	34.0	0.8
<b>Year of birth</b>					
1940	-27.2	-29.8	-24.8	-29.0	3.4
1941	-26.3	-29.1	-24.2	-28.6	3.3
1942	-24.3	-28.7	-23.8	-28.2	3.1
1943	-23.9	-29.0	-25.3	-28.4	2.7
1944	-22.4	-26.7	-22.9	-25.4	2.5
1945	-24.7	-28.0	-24.8	-27.5	-5.1
1946	-24.5	-28.3	-26.0	-27.2	0.1
1947	-24.4	-27.6	-25.0	-26.7	-2.1
1948	-26.8	-28.9	-26.6	-27.6	-2.0

*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

## 8.2 Value growth since start of the premium pension system

*Value growth for unit-linked insurance since start was 0.9 per cent*

The annual average value growth of capital in unit-linked insurance from 1995 up to year-end 2008 amounted to 0.9 per cent.<sup>11</sup> The corresponding figure for 2007 was 5.8 per cent. This significant decline in value growth is due to considerably lower average growth in 2008 compared to previous years.

The negative value growth for pensioners in 2008 did not have the same effect on the annual average growth as it did for pension savers. The explanation is that around 92 per cent of pensioners entered the system as far back as 1995 (as pension savers) and have thus benefited from the prolonged upturn in the equities markets during the 2000s. The annual average return on their pension capital was around 1.3 per cent for the period 1995–2008. As this group of pensioners is so large, their results have a significant effect on the average return calculated on the basis of all pensioners. Those who entered the system as pensioners in the most recent years had an average return in the interval -8.4 to -1.6 per cent.

*Better value growth for self-selected portfolios than for The default fund*

The annual average value growth for The default fund was lower than for the average for the self-selected portfolios, 0.2 (6.0) per cent as compared with 1.3 (5.6) per cent. See table 8.2. As has already been mentioned, value growth varies among pensioners. Some of the pensioners with their own portfolio recorded significantly better value growth than those with The default fund, while others recorded poorer value growth. On average, however, pensioners with a self-selected portfolio recorded better value growth than those with The default fund. This applies for all age groups presented in table 8.2

*Better value growth in the with profit annuities business*

The annual average value growth (internal rate of return) for pensioners holding with profit annuities has since the start been 4.3 (4.7) per cent, i.e. higher than for both types of unit-linked insurance. See table 8.2. Value growth was higher for those with life insurance, irrespective of year of birth.

It is apparent from diagram 8.1 that bonus interest has been reduced almost every quarter since the middle of 2007. At year-end 2008 it was 0 per cent.

*Minor difference in value growth between men and women*

Women recorded marginally better annual average value growth in unit-linked insurance, while men had somewhat better value growth in the with profit annuities business.

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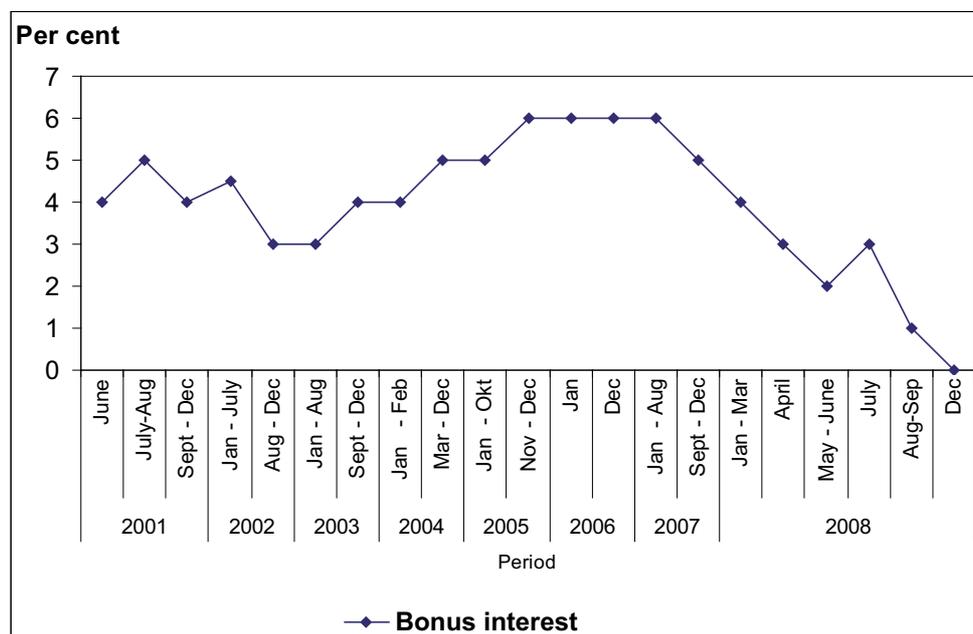
<sup>11</sup> Those who were pensioners in 2008 were pension savers in 1995.

**Table 8.2: Average annual value growth (internal rate of return) during the period 1995–2008 for pensioners with a self-selected portfolio, The default fund or with profit annuity, per cent.**

	All	Unit-linked insurance	Self-selected portfolio	The default fund	With profit annuity
<b>All</b>	1.3	0.9	1.7	0.7	4.3
Women	1.4	1.0	1.8	0.7	4.2
Men	1.2	0.8	1.7	0.6	4.4
<b>Year of birth</b>					
1940	1.7	1.6	2.1	1.3	2.5
1941	1.4	1.2	1.8	1.0	3.5
1942	1.4	1.0	1.9	0.8	3.9
1943	1.3	0.6	1.8	0.5	4.9
1944	1.5	0.8	2.0	0.7	5.6
1945	0.9	0.4	1.3	0.0	3.8
1946	1.0	0.5	1.4	0.2	4.5
1947	1.0	0.5	1.3	0.9	4.4
1948	0.7	0.4	1.1	-0.2	4.2

*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

**Diagram 8.1: Bonus interest for with profit annuities, average per annum.**



## 9 Portfolio selection

This chapter presents the number of funds and those funds that most pensioners chose to have in their self-selected portfolios. Pensioners' portfolio selection is described thereafter, on the basis of asset allocation, risk level and level of fees in the portfolio.

### 9.1 Number of funds selected

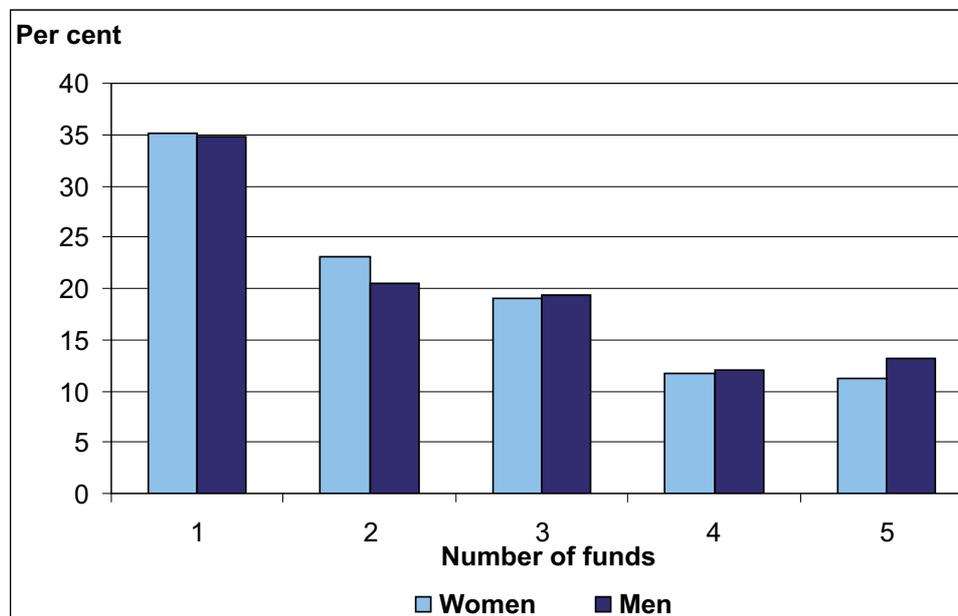
#### *2.4 funds on average*

Those selecting a portfolio of their own may invest their premium pension capital in up to five different funds. The possibility of spreading the risk is greater the more funds that are included in the portfolio. In 2008, pensioners with a self-selected portfolio had an average of 2.4 (2.4) funds.

Diagram 9.1 indicates that more than half of the pensioners have one to two funds in their portfolio. The rest have 3–5 funds. A comparison with corresponding data for 2007 shows that the levels are relatively unchanged.

It can be interesting to note that pensioners distribute their premium pension capital between a smaller number of funds than pension savers. Pension savers have an average of 3.3 funds in their portfolio. One explanation for this difference can be that pensioners generally have less pension capital to distribute and therefore select fewer funds for their portfolio.

**Diagram 9.1: Number of funds in pensioners' self-selected portfolios, year-end 2008.**



## 9.2 Top fund selections

*The most popular funds are mainly equities funds*

Table 9.1 shows the Top 10 list of the funds most selected among pensioners in 2008. Of these funds, equities funds dominate: six of the funds in the table are equities funds. Of the other funds, two are life-cycle funds and two are balanced funds. All of the funds, with the exception of one, have increased in value over the last five years. The funds that recorded the best value growth on this list are in the risk categories high, medium and low. None of the funds on the list is in the categories very low risk and very high risk.

Almost all the equities funds on the list are classified as high risk funds. In 2007, however, all of these equities funds were classified as medium risk. The main reason for the funds being classified as higher risk in 2008 was the financial unrest on the equities markets. Another explanation is that PPM lowered the upper limit in the interval for the medium risk category and lowered the lower limit for the high risk category.<sup>12</sup>

*Same funds were popular in 2007*

A comparison with the corresponding Top 10 list for 2007 shows that all of them were on the list for 2008. Their relative positions, however, have changed over time.

**Table 9.1: Top 10 fund selections among pensioners with their own portfolio selection, ranked by percentage of pensioners who selected the fund, year-end 2008.**

Name of fund	Risk, percentage point	Return 2004–2008, per annum, mean value, per cent	Investment 2007
1 SPP Generation 40-tal	3.8	4	1
2 AMF Pensions Aktiefond - Världen	17.6	3	3
3 AMF Pensions Aktiefond - Sverige	21.5	5	2
4 Swedbank Robur Contura	16.7	-5	4
5 AMF Pensions Balansfond	10.9	5	5
6 Didner & Gerge Aktiefond	19.2	2	6
7 Länsförsäkringar Pension 2010	8.9	4	7
8 Swedbank Robur Medica	12.3	1	8
9 Swedbank Robur Mixfond Pension	7.7	5	9
10 Swedbank Robur Aktiefond Pension	16.4	2	10

*Note: The different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

<sup>12</sup> In 2007 the interval for medium risk was  $8 \leq \text{risk} < 18$  and the interval for high risk  $18 \leq \text{risk} < 25$ . In 2008 the interval for medium risk was  $8 \leq \text{risk} < 16$  and the interval for high risk  $16 \leq \text{risk} < 25$ .

## 9.3 Asset allocation and risk in portfolio

*Risk level in the portfolio of great significance for the premium pension*

As is shown in the corresponding section in the part on pension savers, the risk level in the premium pension portfolio is of great significance for the final premium pension. Pensioners who have retained their self-selected portfolio can decide the risk level in the portfolio and change it themselves. The risk level for The default fund (Premiesparfonden), as for the with profit annuity, is decided for pensioners. Furthermore, the with profit annuity guarantees a minimum lifelong sum.

The two following sections deal with the risk in pensioners' self-selected portfolios in the same way as in the corresponding section in the chapter on pension savers. In the first section, the distribution between equities and fixed-income funds in the portfolio - asset allocation - is used to describe the risk in the portfolio. In the second section, the risk is measured as the average standard deviation of the return on the funds included in the portfolio. Risk is expressed in percentage points.

### 9.3.1 Allocation of assets in portfolio

*Equities are riskier*

The composition of funds in the premium pension portfolio reflects the level of risk that the pensioner has selected for their premium pension. In general it can be said that the greater the proportion of equities in the portfolio, the higher the level of risk. The pensioner also has the possibility of diversifying part of the risk in the individual funds by taking into consideration the way in which the funds' returns co-vary with each other. Choice of asset allocation is thus of great significance for future value growth and, therefore, the size of the premium pension.

*Greatest percentage of equities in the The default fund*

Table 9.2 shows that pensioners with their own portfolio invested more than 66 (77) per cent of the pension capital in equities, while almost 84 (83) per cent of The default fund's assets are in equities. The with profit annuities business shows a relatively low percentage of capital invested in equities, at around 27 (27) per cent.

**Table 9.2: Average asset allocation for pensioners with self-selected portfolio, The default fund and with profit annuity, per cent.**

	Self-selected portfolio	The default fund	With profit annuity
Swedish equities	24.3	17.9	9
Global equities	33.5	50.8	18
Growth markets	8.6	15.0	0
Alternative investments	0.3	6.4	0
Swedish fixed income	31.2	5.2	73
Foreign fixed-income	2.2	4.7	0

*Note: Growth markets include global equities on growth markets. Alternative investments are investments outside the traditional asset classes such as property and raw materials.*

### 9.3.2 Risk level

#### *Risk increased in 2008*

The average risk level in pensioners' unit-linked insurance amounted at year-end 2008 to 14.9 (9.3) percentage points, i.e. medium risk. In general, the risk level in unit-linked insurance increased in 2008. This was mainly due to the increased volatility on the Swedish and foreign equities markets, at the same time as most pensioners did not re-invest their capital in funds with a lower level of risk.

#### *Lower risk in self-selected portfolios*

The risk level was slightly lower in self-selected portfolios than in The default fund, 14.7 (10.4) per cent compared with 15.2 (7.9) per cent. Note that the risk level in The default fund increased from 2007 to a greater extent than the average risk level in self-selected portfolios.

#### *Most people have medium or high risk*

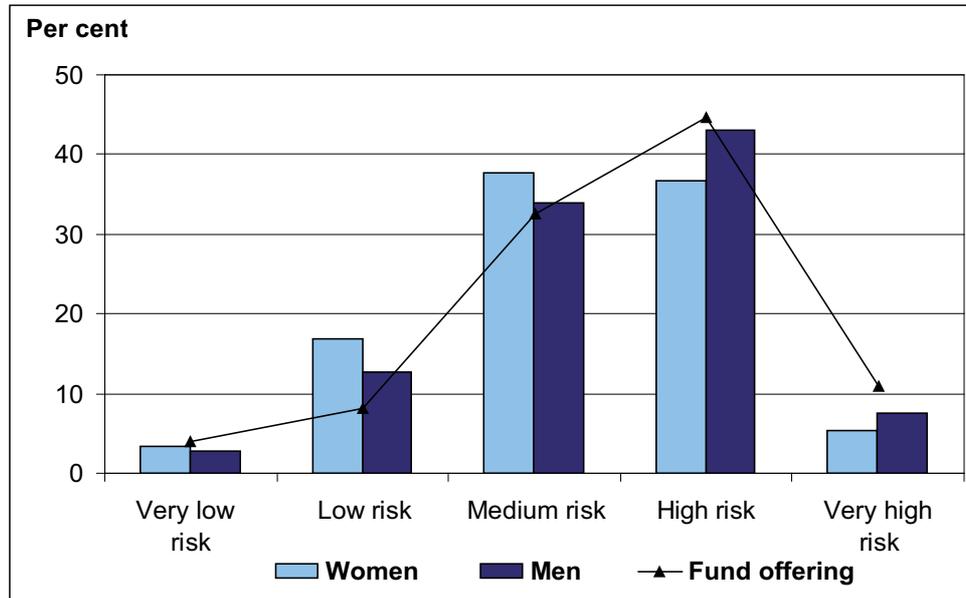
Diagram 9.1 illustrates the percentage of self-selected portfolios at different risk levels in the portfolio, and the spread of the risk level in PPM's fund offering. The five risk categories in the diagram correspond to the categories used by PPM in its funds directory. The diagram provides a picture of how well the risk level in pensioners' own portfolios corresponds with the risk level in the fund offering in PPM's fund supermarket.

It is apparent that the spread of the percentage of portfolios at different categories of risk in the portfolio in general follows the pattern for the spread of the fund offering by risk category. Most pensioners select funds with medium or high risk. A greater percentage of pensioners, however, select funds with low risk compared with the offering. On the other hand, the proportion with very high risk in their portfolio is underrepresented in relation to the offering.

#### *Women tend to select lower risk than men*

Women and men differ slightly in their selection of risk categories. A greater percentage of women than men selected the low and medium risk categories. Conversely, a greater percentage of men selected funds with high to very high risk.

**Diagram 9.2: Percentage of self-selected portfolios for retired women and men, and percentage of funds in PPM's fund supermarket, by risk categories.**



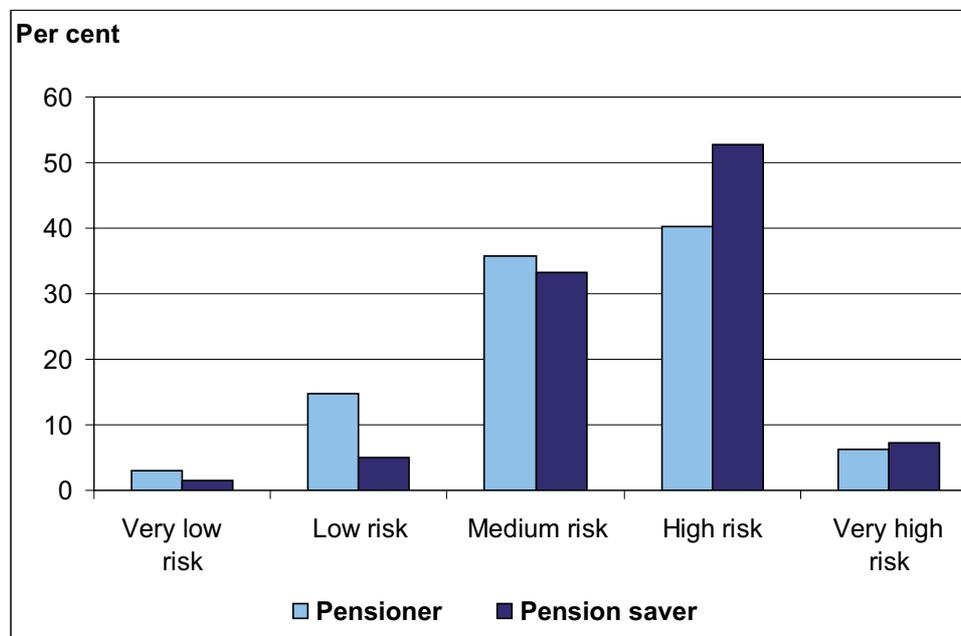
*Note: The portfolio risk is measured as the standard deviation for the portfolio's return and is expressed in percentage points. In the report, however, the standard deviation for the portfolio is calculated as the total of the standard deviations for the return on the portfolio's funds based on the funds' percentage of the portfolio. Calculations do thus not take into account any co-variation between the different funds' return. This means that the measurement tends to overestimate the portfolio's risk. The measurement period for risk is the last 36 months. Only the portfolios/funds that have a risk history of at least 36 months are included in the calculations. Similarly, only the pension savers whose portfolios/funds have a risk history of at least 36 months are included.*

*In the report, the different risk categories are divided as follows. Very low risk if  $0 \leq \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

*Pensioners have lower risk than pension savers*

Diagram 9.3 indicates that a larger percentage of pensioners had very low to medium risk in their portfolios compared with the percentage of pension savers.

**Diagram 9.3: Percentage of pensioners and pension savers' self-selected portfolios, and percentage of funds in PPM's fund supermarket, by risk category.**



*Note: The portfolio risk is measured as the standard deviation for the portfolio's return and is expressed in percentage points. In the report, however, the standard deviation for the portfolio is calculated as the total of the standard deviations for the return on the portfolio's funds based on the funds' percentage of the portfolio. Calculations do thus not take into account any co-variation between the different funds' return. This means that the measurement tends to overestimate the portfolio's risk. The measurement period for risk is the last 36 months. Only the portfolios/funds that have a risk history of at least 36 months are included in the calculations. Similarly, only the pension savers whose portfolios/funds have a risk history of at least 36 months are included.*

*In the report, the different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

## 9.4 Level of fees in portfolio

*Pensioners paid an average of 0.30 per cent in portfolio fee*

Fund managers generally charge a fee for managing the funds they offer. The portfolio fee is the weighted average of the management fees, after discount, for the funds included in the portfolio. As described in the corresponding section on PPM pension savers, the level of fees affects the pension outcome significantly.

The average fee for self-selected portfolios decreased from the previous year, from 0.34 per cent to 0.30 per cent. The decrease is explained to a great extent by the new discount model that PPM introduced in 2007.<sup>13</sup> The fee for The default fund is 0.15 (0.15) per cent. It is apparent from table 9.3 that women have a lower average portfolio fee than men.

**Table 9.3: Portfolio fee for pensioners with self-selected portfolios, year-end 2008, per cent.**

	<b>Mean fee</b>	<b>Median</b>	<b>5th percentile</b>	<b>95th percentile</b>
Women	0.29	0.23	0.15	0.60
Men	0.31	0.25	0.15	0.64

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<sup>13</sup>PPM operates a discount model to enable pension savers and pensioners to benefit to a greater extent from the cost advantages in asset management that the premium pension system generates. Information on the discount model can be found in the Annual Report of the Premium Pension Authority for 2008.

## 10 Pensioners' activity

This chapter describes pensioners' activity as regards portfolio selection on joining the premium pension system, and number of fund switches.

### 10.1 Percentage with self-selected portfolio and The default fund (Premiesparfonden) respectively

*59 per cent of pensioners had self-selected portfolio*

Most of the pensioners had the possibility of selecting funds for the premium pension portfolio for the first time in 2000, but then as pension savers. Around 53 per cent of them selected their own portfolio that year, while the others' capital was invested in The default fund.

At year-end 2008, 59 (57) per cent of pensioners had a self-selected portfolio. Thus it is a smaller percentage of pensioners who selected their own portfolio as compared with pension savers.

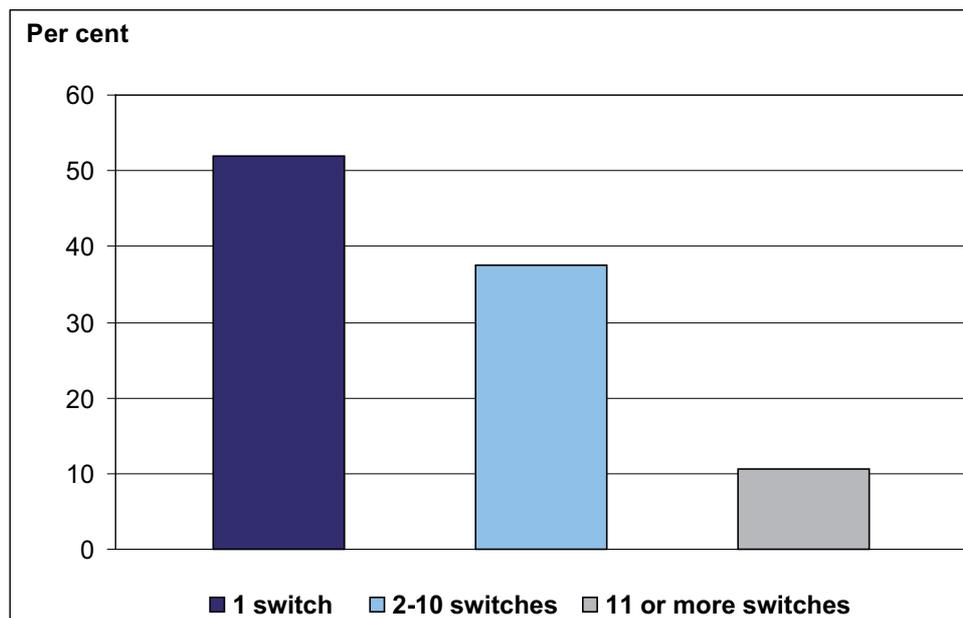
### 10.2 Number of fund switches after year of joining

*Half of the pensioners had only made one fund switch since joining*

Of the pensioners who made an active selection on entering the premium pension system, around 26 (23) per cent have made at least one fund switch since becoming pensioners.

It is apparent from diagram 10.1 that more than 50 per cent of those with a self-selected portfolio have only switched funds on one occasion after joining. More than 10 per cent have switched funds at least 11 times since joining.

**Diagram 10.1: Percentage of pensioners with self-selected portfolio, by number of fund switches made after year of joining up until year-end 2008.**



*Note: The diagram shows the number of fund switches since entry into the premium pension system, not only for the period as a pensioner. The category “1 switch” includes those who originally selected The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

## 10.3 Number of fund switches and value growth

*The most active record the best value growth*

Table 10.1 shows the number of fund switches made in 2008 by pensioners with a self-selected portfolio. It is apparent that only 7 per cent of these pensioners made a fund switch during the year, which can be compared with 23 per cent of pension savers. It is also apparent that it is the most active pensioners who have recorded the best value growth, both in 2008 and since the start. Note that the pensioners had a greater percentage of interest-bearing securities and lower risk in their investments than the pension savers. Compare with table 6.6.

A comparison between table 10.1 and corresponding data for 2007 indicates that the most active pensioners reduced the risk level in their portfolios in 2008 by transferring their capital to funds with a greater element of interest-bearing securities. This has benefited them in the form of better value growth than other pensioners recorded. This group also recorded the greatest value growth in 2007, on average as well as from the start.

**Table 10.1: Average value growth for 2008 and annual average value growth since year of joining and up until 2008, by number of fund switches made in 2008, for pensioners with a self-selected portfolio, per cent.**

No. of switches 2008	Value growth, average 2008	Annual value growth, average	Percentage interest-bearing securities in portfolio	Risk in portfolio, average 2008, per cent	Percentage savers in each category
0	-20.6	1.7	27	14.8	93.5
1	-28.3	1.5	47	14.7	3.4
2-5	-28.3	3.2	61	12.0	2.0
6-10	-24.4	4.5	65	10.7	0.7
11-20	-20.7	5.7	75	11.7	0.3
More than 20	-13.5	8.5	92	3.1	0.1

*Note: In the “0 switch” category, those who selected their own portfolio on joining but have not made any fund switches thereafter are included. The category “1 switch” includes those who originally had The default fund and who then selected their own portfolio (one fund switch) but have not switched funds thereafter. This category also includes those who selected their own portfolio on joining and who thereafter have only made one fund switch.*

*The different risk categories are divided as follows. Very low risk if  $0 = \text{risk} < 3$ , low risk if  $3 \leq \text{risk} < 8$ , medium risk if  $8 \leq \text{risk} < 16$ , high risk if  $16 \leq \text{risk} < 25$  and very high risk if  $\text{risk} \geq 25$ .*

# 11 Pensioners' premium pension

The premium pension may be drawn from the age of 61 at the earliest but there is no upper age limit for when withdrawal must be started at the latest. A pensioner can choose only to draw the premium pension or combine it with withdrawal of the income-related pension.<sup>14</sup> In the following section, it is only the withdrawal of premium pension that is presented.

## 11.1 Drawing of pension benefits

*Almost everyone draws the whole of their annual pension benefit.*

Those who wish to draw their premium pension may choose from four levels of benefit: 25 per cent, 50 per cent, 75 per cent and 100 per cent. A pensioner can alter the level of benefit and even suspend withdrawals. A pensioner who suspends drawing benefits is still regarded as a pensioner in the premium pension system, with their level of benefit being set at 0 per cent.

Table 11.1 indicates the average annual benefits drawn under the premium pension system. It is apparent that most pensioners, around 95 (94) per cent, draw the entire annual pension benefit. Among those who only draw part of their pension, the commonest level of withdrawal is 25 per cent. It is more usual that pensioners younger than 65 draw their pension benefit at this level as compared with those who are older. The percentage of pensioners at the different levels of benefit changed only marginally from the previous year.

*SEK 142 per month in average premium pension benefit*

For the time being, the amounts drawn are relatively low in view of the fact that the pension system has not yet been fully phased in. Most people draw an average of SEK 1,700 per annum. That is equivalent to SEK 142 per month.

An individual who chooses to draw their premium pension can still continue in employment and earn new pension entitlements. From the data available for the report, it is not possible to see whether a pensioner earned pension entitlements in 2008.

**Table 11.1: Percentage of pensioners, annual premium pension drawn and balance in premium pension account, by level of benefit drawn, year-end 2008.**

Level of benefit, per cent	Pensioners, proportion, per cent	Amount drawn annually, mean value, SEK	Balance in account, mean value, SEK
0	0.5	500	29 600
25	3.5	800	38 500
50	0.7	1 400	30 600
75	0.2	2 000	29 000
100	95.1	1 700	17 900

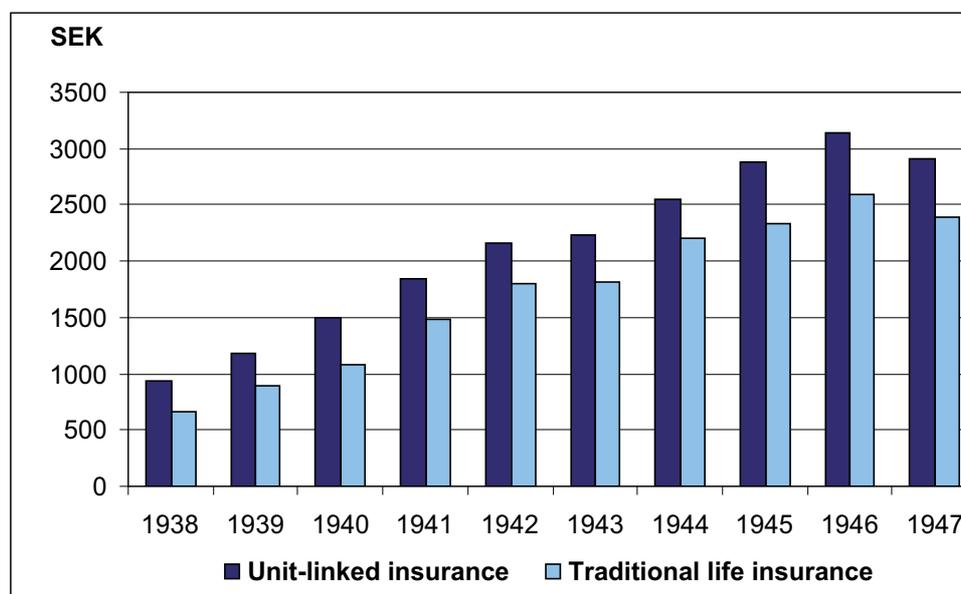
<sup>14</sup> A pensioner can of course choose only to draw income-based pension. PPM has no information on whether pensioners draw their income-based pension.

*Younger pensioners receive more in premium pension benefits*

Diagram 11.1 shows the annual payment of premium pensions to those who draw the entire annual amount, i.e. at the 100 per cent benefit level. It is apparent that, the later the year of birth (the younger the pensioner is), the higher the benefit amount. This applies both to the unit-linked insurance business and to the with profit annuities business. The amounts vary between SEK 900 (700) and SEK 3,100 (2,900) per annum in unit-linked insurance and between SEK 700 (600) and SEK 2,600 (2,300) per annum in the with profit annuities business.

The differences in benefits drawn between the different years of birth depend mainly on the size of the credit balance. As mentioned earlier, the younger pensioners have on average more in their premium pension accounts than older pensioners. The younger ones can therefore draw larger amounts. The younger pensioners have on average more in their accounts since they, on the one hand, have allocated more pension capital per annum and, on the other hand, have allocated capital for longer.

**Diagram 11.1: Annual premium pension benefit in 2008, for pensioners with 100 per cent benefit level, by year of birth, average amount.**

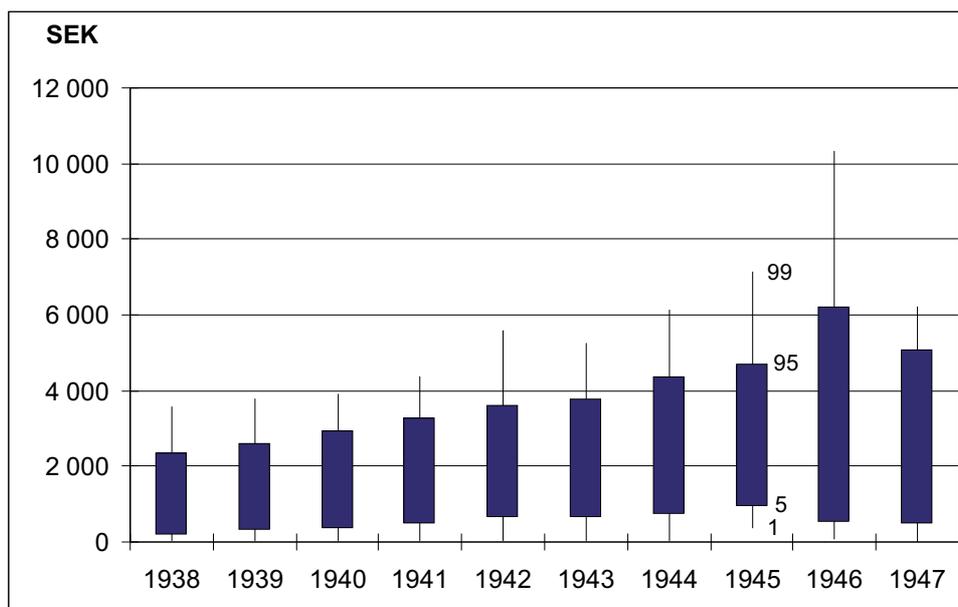


*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

*Considerable spread in premium pension paid*

Diagram 11.2 shows the spread of the pension paid out from unit-linked insurance for pensioners with a benefit level of 100 per cent. The lower and upper bands of the column mark the 5th and 95th percentile respectively.<sup>15</sup> It is apparent from the diagram that there is a greater variation in pension paid out among the younger pensioners than the older ones.

**Diagram 11.2: Spread of pension paid out from unit-linked insurance for pensioners with benefit level of 100 per cent, by year of birth, at year-end 2008.**



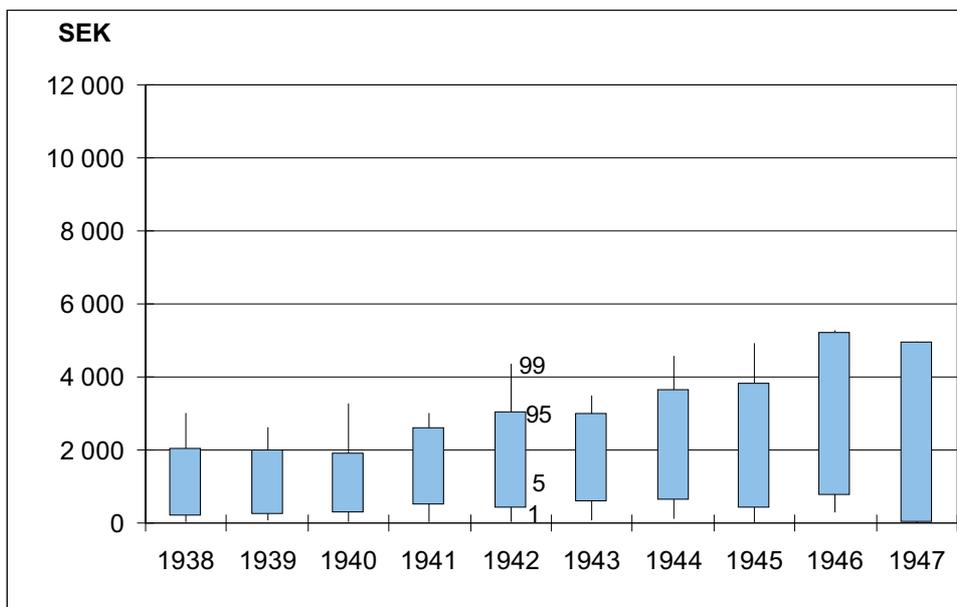
*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

*The term “percentile” may be explained as follows. The pensioners are ranked, beginning with the pensioner who draws the lowest pension benefit to the pensioner who draws the highest pension benefit. They are then divided into one hundred groups of equal size, or percentiles.*

<sup>15</sup> The term “percentile” may be explained as follows. The pensioners are ranked, beginning with the pensioner who draws the lowest pension benefit to the pensioner who draws the highest pension benefit. They are then divided into a hundred groups of equal size, or percentiles.

Diagram 11.3 shows the spread of the pension paid out from the with profit annuities business for pensioners with a benefit level of 100 per cent. Among these pensioners too the variation in pension benefit paid out is greater among the younger than the older pensioners.

**Diagram 11.3: Spread of pension paid out from the with profit annuities business for pensioners with benefit level of 100 per cent, by year of birth, at year-end 2007.**



*Note: Those born in 1943 are 65. Those born later draw their pension prior to the age of 65.*

*Differences in pension payments will increase with time*

In the long-term, the differences in pension payments between individuals will increase. This is due to the fact that, when the premium pension system has been completely phased in, differences in pension allocations will increase, since a greater number of people will have paid in relatively little or relatively much to the system. Another reason is that the individuals will record different value growth of their premium pension capital. The larger the amount invested, the larger will be the variations in value growth, counted in kronor. This in turn gives greater variations in account balance and thus also in pension payments.

# Appendix 1

## Description of data

This report is based mainly on data generated by PPM's databases Pluto and FIDB, but also on data from Försäkringskassan's (the National Swedish Social Insurance Agency) data warehouse STORE. Pluto contains individual-specific information on pension savers' and pensioners' pension entitlements and premium pension portfolios, including the transactions and the trading in funds performed. FIDB consists, on the other hand, only of information on those funds included in the premium pension system, such as standard deviations for return (risk), management fee, and name and type of fund. STORE supplements PPM's data with educational qualifications, county of residence and country of birth.

The description of pension savers and pensioners is based on a random sample consisting of all individuals in the premium pension system in 2008 and born on the 10th of each month. The sample represents just over 3 per cent of the population covered by the premium pension system in 2008. Pension savers and pensioners who died during the year are not included in the sample. On the other hand, those who have emigrated or moved to Sweden during the year are included. The sample comprises around 194,800 individuals, of whom 176,900 are pension savers and just over 17,900 are pensioners. It is specifically stated in the report when details are based on total statistics of the population in the premium pension system.

Unless otherwise stated in the report, the data presented is per 31 December 2007. Synonymous expressions for this point in time are "at year-end 2008" and "at the close of 2008". Figures in parentheses refer to 2007.

## Appendix 2

### General facts on the premium pension system

Everyone who receives work-related income and pays tax in Sweden earns entitlement to participate in the national retirement pension system. Retirement pension consists of an income-based pension, a premium pension and a guaranteed pension. The guaranteed pension is a basic entitlement, providing a pension for those who have not earned sufficient entitlement to income-related and premium pension. The income-related and premium pensions are based on the lifetime-income principle and on the annual pension entitlement that is equivalent to 18.5 per cent of the pensionable salary. The pensionable salary is the total of the fixed pensionable income and the pensionable sums. The pension contribution gives entitlement to a national pension on incomes up to 7.5 base income amounts.

Of this pension entitlement, 16 percentage points are allocated to the income-related pension and 2.5 percentage points to the premium pension. The entitlement to the income-related pension accrues to the income-related pension system, a distributive system in which the funds are channelled directly to those who are pensioners.<sup>16</sup> The part of the pension entitlement that goes to the premium pension system is earmarked for the pension saver and the pension saver himself selects the funds in which the capital is to be invested.

Preliminary pension entitlements are paid in continuously to the premium pension authority, which manages these funds until the respective pension entitlements are fixed. When the pension entitlements have been fixed, the premium pension capital is transferred to the pension savers' premium savings accounts. Those pension savers who wish to compile a portfolio of funds themselves can do this by selecting funds from the fund supermarket, which is made up of all the funds that have been joined to the premium pension system. The pension savers themselves may then select the distribution between different types of assets, funds and fund managers. Savers may opt to invest their capital in up to five different funds. When savers switch funds, no switching fee is charged. Fund management companies, however, usually charge a management fee. If a new pension saver does not notify any fund selection, pension savings are invested in The default fund. The default fund (Premiesparfonden) is a "non-selectable alternative" in the premium pension system and it is managed by the Seventh Swedish Pension Fund (Sjunde AP-fonden). An individual who has selected other funds cannot thereafter select The default fund.

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<sup>16</sup> The pension entitlement in the income distribution system is recalculated every year, taking into account such factors as changes in the income index, survivor bonuses, costs and the distribution formula that reflects the remaining term of life.

The size of a person's premium pension will depend partly on how much has been paid in, value growth, PPM fee, management costs, survivor's bonuses and the age at which the pension saver elects to draw his or her pension. The premium pension may be drawn as of the month in which the pension saver turns 61. During retirement, the premium pension can continue to be invested in mutual funds or in the with profit annuities that PPM offers. The pension is lifelong and is calculated on the basis of the balance held in the premium savings account. For those with their premium pension in funds, PPM annually fixes a sum in Swedish kronor that is paid out monthly during the following calendar year. Before making the payments, PPM sells off as many fund units as necessary for the amount to be paid. If the pensioner chooses the with profit annuity, the pension is fixed on the basis of the value of the assets in the account at the time when PPM redeems its holding. PPM thereby assumes the risk of any negative outcomes on behalf of the pensioner.

Every year, everyone who has paid into the national retirement pension system receives a value statement, known as the "orange envelope", from Försäkringskassan and PPM. The statement shows the balance in the accounts for income-based pension and premium pension. In addition, the statement shows a forecast of the national retirement pension payments, depending on the point in time at which the individual elects to draw it.

The national retirement pension system was reformed during the 1990s and was introduced gradually. This means that those born before 1938 are covered completely by the previous pension system, while those born in 1954 or thereafter are covered by the new system only. Those born in 1938–1953 are covered by both pension systems and are subject to transitional rules. The rules are designed in such a way that the previous system is phased out while the reformed system is phased in. The transitional rules are such that a person born in 1938 receives 16 twentieths of their pension from the previous system and 4 twentieths from the new system. The corresponding twentieths for a person born in 1953 are 1 and 19 respectively. This means that the younger a person is, the greater the share of their pension income will be paid from the new pension system. This also means that, for those who are retired today, the premium pension comprises a relatively minor part of the income from the national retirement pension system. This part will be greater for future pensioners.

## Appendix 3

### Return measurement for unit-linked insurance

The premium pension savings that are allocated each month for the pension saver are managed temporarily by PPM until the pension savings are invested in the saver's premium pension account. This investment occurs once a year, with the monies being divided according to the prevailing fund composition in the premium pension portfolio. The return on the pension savings depends initially on the outcome of PPM's temporary management but, in the long term, it is the return on the unit-linked insurance that is decisive. The fees that are paid to PPM and fund managers and the discount given on the management fees also affect the return.

When there is movement of capital in the premium pension account, it does not suffice only to compare an ingoing and an outgoing portfolio value in order to measure the return. This is due to the outgoing portfolio value not only being affected by market valuation but also by continued incoming and outgoing payments. To give a correct description of how the return on the premium pension investment has developed during the course of several periods, the return must be weighted together in some way. The generally accepted measurements used in the report are time-weighted return and internal rate of return. The time-weighted return measures how the return has developed for the fund, while the capital-weighted return shows the return for the pension saver. A simplified description of the two measurements is given below.

#### *Time-weighted return*

To measure the return for a fund, time-weighted return is used. The measurement removes the effects of the inflow and outflow of capital, i.e. whether new pension rights have been paid in or whether fees have been paid out does not affect the calculated return. The time-weighted return thus measures the return for a deposited Swedish krona during a certain period.

When the time-weighted return is calculated for a period, the returns for the subperiods are weighted together with equivalent weights. A subperiod is comprised of the time between two cash flows. Equation (1) describes the time-weighted return.

$$R_T = \left[ \prod_{t=0}^T \frac{MV_{t+1}}{MV_t + C_t} \right] - 1 \quad (1)$$

$R_T$  = Return during the period

$MV_t$  = Market value at the time  $t$

$C_t$  = Cash flow at the time  $t$

$T$  = Final point in time

Time-weighted return can be used for accurate comparisons of the return between funds where fund managers cannot allocate more capital in the case of positive circumstances or vice versa. The measurement can also be used for comparison with relevant market indices or with other management companies' return.

In the premium pension system, the pension saver cannot freely decide on the inflow or outflow of capital to the premium pension account. The saver, however, decides if and when the pension savings that have been invested are to be transferred to another fund. The fund management companies have no influence over the capital flow in the fund.

#### *Internal rate of return*

When the value growth of the pension saver's premium pension is measured, an internal rate of return is calculated. The internal rate of return can in this case be compared with the interest rate that would have generated the balance in the pension account if an equivalent amount of earned pension entitlements had instead been invested in a bank account.

The capital-weighted return takes the capital flow in the premium pension account into account by weighting together the return with the pension amount that is in the account during the corresponding period. This means that the return during periods when the amount of managed capital has been high is of more significance in the calculation of the return during periods when the amount of capital has been low. The capital flows that affect the internal rate of return are paid-in pension entitlements, interest on the preliminary pension entitlements, return on the funds in the portfolio, the fee to PPM, the management fee to the fund management companies, the discount on the management fee, survivor bonuses and pension payments.

Note that pension savers who have selected the same fund but had different capital flows in their accounts, such as in the form of pension allocations, will display different internal rates of return for the same fund. The capital-weighted return can thus not be used to compare savers who have invested in the same fund.

When the capital-weighted return is calculated, the internal rate of return is sought. The internal rate of return is the discount rate that results in the present value of all cash-flows, including the portfolio's outgoing value, being exactly equivalent to the portfolio's ingoing value. Equation (2) describes the capital-weighted return.

To calculate the internal rate of return, information is needed on (1) outgoing portfolio value (market value), (2) all cash-flows to and from the portfolio, and (3) the time of these cash-flows.

The internal rate of return  $r$  at annual growth rate is the rate that fulfils the following relation:

$$\sum_{t=0}^T \frac{C_t}{(1+r)^{t/365}} = 0 \quad \text{where} \quad (2)$$

$r$  = The internal rate of return for the period expressed as annual growth rate

$t$  = Number of days since date of start

$C_t$  = The cash-flow at the time  $t$  ( $C_T$  is the final value, assumed to be a negative cash-flow)

The internal rate of return can be said to lead to the "bank account interest" which, given deposits and withdrawals, has resulted in the final value in question.





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