Introduction

Solidarity and equality are very important issues within the Dutch culture, which is individualistic and consensus and consultation-oriented (Delsen, 2002). The Dutch also tend to avoid risk. The Netherlands is a corporatist economy; it is typical for the social partners to be involved in the preparation, formulation and implementation of the national social-economic policy. This is also reflected in pension funds' governance.

The paper is structured as follows. Section 2 reviews the legal frame, including the most important changes introduced by the 2007 Pension Act. In Section 3 the developments in the size and characteristics of the Dutch pension market over the past decades are presented. The developments in the number and types of pension funds are addressed in Section 4. Section 5 deals with the ambition level of the occupational pensions, and Section 6 with the costs of the occupational pension schemes. Section 7 deals with the coverage of occupational pension funds. Sections 8 and 9 review the recent reforms of pension plans, and related to this the redistribution of risks. The governance structure and supervision of pension funds are addressed in Sections 10 and 11. Section 12 concludes with the macro-economic impact of pension funds.

1. Legal frame

In the Netherlands, the second pension pillar involves the supplementary occupational pension system and is strongly linked to the idea of deferred wages. The establishment and control of pension funds is the responsibility of the social partners. Company pension funds and industry-wide pension funds may be managed by insurance companies. However, although the social partners may use fund managers to execute pension funds, the social partners within the board of the pension fund remain responsible for the assets and liabilities of the fund.

The government provides the legal framework and fiscal support. On January 1, 2007, the Pension Act (Pensioenwet) replaced the Pension...
and Savings Funds Act (Pensioen- en Spaarfondsenwet – PSW). It constitutes the new legal framework in which the Dutch social partners reach pension agreements. The purpose of the Pension Act is to secure the pension amounts. It prescribes financing through full funding for the liabilities of pension funds. Pension funds are responsible for business practice and risk management. It is also compulsory to separate the pension amounts from the company capital and to place the pension obligation outside of the company. Pension liabilities are financed by premiums paid and returns on investments. In the new Pension Act employers and pensioners are given more security about the (future) payment of their pension. Pension funds have to meet stricter demands concerning their equity, so that pensioners’ acquired rights can be honoured. Pensioners have the legal right to reliable and clear information about their pensions. A key aim is to increase transparency and to raise “pension awareness” to increase support for maintenance of the current pension system. On appointment the employer has to inform the newly hired employee within three months about all working conditions, including how his pension scheme looks and what he/she may expect after retirement, including accrual of rights and risks involved. At least once a year the active members have to be informed by the pension fund about their pension accrual and the indexation of their pension. Sleepers once in every five years have to be informed about indexation policy. The participant receives the right information in case the employer fails to pay the pension premium that affects the pension rights. Pension funds deal with the administration, contribution policy and investment policy and from January 1, 2007 also have the responsibility for formulating and realising the indexation ambition.

The 2007 Pensions Act also works to guarantee the financial viability of occupational pensions. It introduced a new Financial Assessment Framework (Financieel Toetsingskader, FTK) drafted by the former Pension and Insurance Supervisory authority (Pensioen- en Verzekeringskamer, PVK), which comprises several elements, including the marked-to-market value of liabilities and solvency requirements. There are also requirements regarding pension funds risk. For example, if a pension plan opts for increased investment risk, more financial reserves will have to be held to back the funding risk. The Guidelines for Pension Fund Governance drawn up by the social partners in the Foundation of Labour (2005) on request from the Minister of Social Affairs and Employment are – as requested by the social partners - legally embedded in the new Pension Act, so as to compel all pension funds to adhere to the principles by January 1, 2008 and authorise the Dutch central bank (De Nederlandsche Bank, DNB) - the supervisory authority since 2004 - to enforce compliance. The 2007
Pension Act states that pension fund managers exclusively act to favour the stakeholders of the funds. The governing body shall ensure that the pension fund operates solely for the benefit of all its stakeholders. However, there may be conflicting interests between employers, employees and pensioners as well as between managers and participants in the funds. The principle of good pension governance also requires certain standards concerning competences and professionalism of the management and control and accountability.

Solidarity is the basis of Dutch pension funds: pension rights are offered on the same conditions to all employees, irrespective of gender, age or state of health. This requires mandatory participation. The Netherlands have a pseudo-compulsory pension. The Compulsory Participation in an industry Pension Fund Act (*Wet verplichte deelneming in een bedrijfstakpensioenfonds* - *Wet BPF*) obliges the employer to allow an employee into the company’s pension plan if the employee belongs to a group to which a negotiated pension plan applies. At the request of the representative social partners in the sector concerned, this act gives the Minister of Social Affairs and Employment the option to make participation in that sector’s pension scheme compulsory for all employees and all employers within that sector. It applies to large sectors and branches like the government sector, health care, the building and metal industries, but also to bakers, the butchers and agricultural workers. Transaction costs are low, notable for the smaller companies that do not need to hire external pension know-how. Compulsory participation provides for solidarity between employees as well as between companies. It discourages the use of pension provision as an element to compete within a trade or industry sector.

It has been alleged that this Dutch pseudo-compulsory pension may conflict with statements in the EC treaty concerning free competition and the prevention of creation of monopolies. In 1999 the European Court of Justice concluded that the supplementary pension schemes are of social and economic importance. To safeguard these arrangements agreed upon by the social partners the Court was of the opinion that the exception clauses of the European Treaty in respect of the right of free competition are applicable. Without mandatory participation it will result in adverse selection: better risks participants would turn away from the sector pension funds. On the other hand in case of compulsory participation the risk of moral hazard is real, and may also be accompanied by limited accountability and transparency (see Clark and Bennett, 2001).

The new Pension Act does not allow pension schemes to set admission age higher than 21, to prevent discrimination of younger workers.
At present pension funds covering over 40% of the active participants apply a minimum age, often 25 years, before acquiring pension rights. No admission age applies to over half of the active participants.

Since 1994, there has been PSW legislation in the Netherlands entitling employees (legal right) to a value transfer of their accrued pension rights to another employer, which prevents the pension loss from occurring for these “sleepers”. So portability of pension assets between companies on job transfer within the Netherlands is guaranteed. The transfer value equals the present value of the entitlements on the transfer date. However, transfer from a final-pay scheme to an average pay scheme may imply loss of entitlements. Financial losses may also occur due to differences in indexation, franchise, etc. As of 1992, following the PSW the pensions of early leavers (“sleepers”) have to be indexed at the same rate as the pensions of the retirees. However, damage sustained in the past will not be repaired.

Based on the old PSW Act, the employer has the choice of funding private scheme benefits by means of the establishment an enterprise pension fund, by joining a branch pension fund, by concluding an insurance agreement for his employees with an insurance company (a B-polis) or to allow the employees to conclude pension insurance agreements themselves with an insurance company (a C-polis). Now that there is a legal right to value transfer, under the 2007 Pension Act this is no longer possible for employees to act as policy holders.

2. Value and characteristics of the Dutch pension market

Measured in value of assets, the Dutch pension market is one of the largest in Europe and shows an increasing trend. In the second half of the 1990s the increase was particularly strong (see Figure 1). In 1970 the balance sheet total of Dutch pension funds was almost 28% of gross domestic product (GDP), in 1989 this was 74% and in 1995 it increased to 81%. Between 1997 and 2006 Dutch pension funds investments almost doubled from over 350 billion to 692 billion. As a proportion of GDP its value rose to 116% in 1999, and at present assets of private pension insurance funds amount to over 127% of GDP. The strong growth of pension funds assets in the 1990s is related to the fact that more employees gained access to collective pension schemes, the maturation of pension funds and the shift from pay-as-you go early retirement schemes towards funded pre-retirement schemes. Also the surge of the stock market played a role (Van Ewijk, 2005). Figure 1 also clearly shows the impact of the 2001-2002 financial crisis. This pension crisis has been the trigger for fundamental changes.
Under funding guaranties are based on the ability of the pension funds always to yield an adequate return on financial assets. In the first half of the 1990s the average annual returns of Dutch pension funds was 7.3 %; in the second half of the 1990s this was higher: 11.6 %. After 1999 returns have dropped and turned negative in 2001 (-2.5 %) and 2002 (-8.0 %). In 2003 the average return rate again was 10.1 %, in 2004 9.5 % and in 2005 average return was 13.0 %.

**Figure 1.** Balance sheet total Dutch pension funds, 1970-2005, percentages of GDP

Dutch pension funds traditionally invested mainly in low-risk government bonds, in fixed interest investment. The only firm investment restriction in the Pension Act is a 5 % maximum on investing in shares of the sponsor although there is a possibility of raising this to 10 % if sufficient reserves are present. The past decades Dutch pension funds significantly increased their holding of equities. Its proportion in assets increased from a low 4 % in 1980 to 27 % in 1995 and 50 % in 2005. In the same period the proportion of bonds increased also from 8 % in 1980 to 40 % in 2005 (see Figure 2). In 2005 shares and bonds represented 90 % of the investments; against 48 % in 1994 and 12 % in 1980. In the late 1990s many pension funds invested in shares. As a result of favourable returns, shares accounted for 50 % of their investments in 1999. After 1999 this percentage dropped to 42 in 2002 because of decreasing share prices. The increase in securities was accompanied by a strong internationalisation of investment. At the end of 1985 6 % was invested in foreign se-
curities; at the end of 2004 this was nearly 73 %. The investment in real estate dropped from 9 % in 1980 to 4 % of total investments in 2005. The expansion in share ownership has been mostly at the expense of private loans. Its share in total investments decreased from 80 % in 1980 to 43 % in 1994 to 6 % in 2005.

**Figure 2.** Investment mix Dutch pension funds, 1980-2005, percentages

![Diagram showing investment mix from 1980 to 2005]

Source: DNB.

Risk baring investments in shares may outperform bonds in the long run; they also make funds more vulnerable and dependent on stock exchanges. In 2001 and 2002 due to dropping share prices and negative returns, about 300 Dutch pension funds became underfunded. The average funding ratio declined from 150 % in 1999 to 109 % in 2002, to what it was in the mid-1990s.(see Figure 3). After 2002 the values of shares and solvency increased again; in 2005 the funding ratio was 131. To restore funding ratios as required in the supervisory authority PVK 2002 letter in the public and private sector contributions were raised.
Figure 3 also shows that the new Pension Act has its impact on the funding ratio. The new measure of funding ratio based on the marked-to-market valuation reflects the steady decline of the long-term interest rates since the early 1990s. Note however, that it only relates to the guaranteed liabilities, i.e. the accrued benefit obligation, excluding the index ambition. Adjusting liabilities to inflation, funding rate mid 2006 was about 100% and some 90% in case pension benefits increase in line with wages (Kakes and Broeders, 2006: 50). Figure 3 moreover shows that the erosion of the financial position of the pension funds began much earlier than by the measure based on the fixed actuarial rate of interest.

3. Three types of pension funds

Relative to other countries, the influence of trade unions on structuring the supplementary pension schemes is strong, because social partners commonly structure the second pension pillar not only at enterprise level, but also at branch level and national level. In 2006, in the Netherlands there were about 800 pension funds (see Table 1). Although no legal form is required, almost all Dutch pension funds are not-for-profit foundations. Three major types of pension funds can be distinguished: company funds, industry-wide funds, and professional group funds. They are closed pension funds: they support pension plans that are of certain (groups of) of employees.
Company funds provide pension plans to the employees of their sponsor company. They are separate legal entities, but are run directly by the sponsor company and, often, the union of the employees. Examples of company pension funds are Akzo Nobel, ABN AMRO, Heineken, KLM, Rabobank, Philips, Royal Dutch Shell, and Dutch railways.

Table 1. Number of Dutch pension funds by type of funds, 1997-2006

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Industry-wide pension funds</td>
<td>103</td>
<td>103</td>
<td>104</td>
<td>103</td>
<td>102</td>
<td>100</td>
<td>92</td>
<td>93</td>
<td>85</td>
<td>82</td>
</tr>
<tr>
<td>Company pension funds</td>
<td>669</td>
<td>707</td>
<td>718</td>
<td>753</td>
<td>804</td>
<td>843</td>
<td>877</td>
<td>904</td>
<td>938</td>
<td>957</td>
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<tr>
<td>Professional pension funds</td>
<td>20</td>
<td>21</td>
<td>19</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>792</td>
<td>831</td>
<td>841</td>
<td>873</td>
<td>924</td>
<td>961</td>
<td>986</td>
<td>1,014</td>
<td>1,040</td>
<td>1,059</td>
</tr>
</tbody>
</table>

Source: DNB.

Industry funds provide pension plans for employees in an industry. Such pension plans are based on a collective labour agreement (CLA) between an industry's companies and the labour unions, representing the employees in this industry. There are two types of industry-wide pension funds: compulsory funds and non-compulsory funds. Compulsory funds are based on a CLA making participation mandatory for all employers and employees working in the respective industry. ABP Pension Fund Foundation (government and educational sector) and PGGM (healthcare and social work sector) are well known examples. ABP and PGGM represent about 40% of Dutch pension funds' assets and 35% of all participants (see Delsen, 2008). Non-compulsory industry funds refer to CLAs that leave employers a choice as to whether or not to participate.

Finally, professional group funds offer pension schemes to specific professional groups (e.g. public notaries; doctors, physiotherapists, solicitors etc.). In contrast to company and industry funds, professional group funds deal directly with workers and not with employers. Other types of pension funds include saving funds, but they constitute a very small share of the industry.

The Dutch pension system is dominated by industry-wide pension funds in terms of assets as well as participants. In 2005 industry-wide funds accounted for two-thirds of private sector pension fund assets; company funds for about 30% and professional pension funds for about 3%. The large majority of employees are covered by industry-wide pension funds. This applies to both active members (85% in 2005) and pensioners (79% in 2005). The total number of pension funds shows a decreasing trend. During the passed decade its number decreased from over one thousand to less than 800 (see Table 1). The number of
company pension funds dropped from 957 to 669, while the number of industry-wide pension funds increased from 82 to 103. The number of professional funds is rather stable at about 20. This trend in numbers mirrors the increasing size of pension funds in terms of participation, coverage and assets that allows achieving considerable economies of scale in pension fund provision.

4. Ambition level

Mandatory pensions in the Netherlands are high by international standards. First and second pillar pensions together aim at a level of 70 % of final earnings for all income classes at the pension age of 62. At the statutory age of 65 pensions can grow up to 100 % of the final earnings. From an international perspective, also the ambition level of the second pillar is relatively high; the share of the second pillar in pension income is 40 %. When pension funds become more mature, it is expected to increase to 60 % (Van Ewijk, 2005). The importance of occupational schemes reflects a strong corporatist tradition. According to this tradition, apart from the state providing a basic minimum pension, pension provision is primarily viewed as a collective responsibility of employees and employers. Pension schemes are an important part of the employment conditions laid down in (collective labour) agreements. Admission rules, provisions and benefits are determined in collective bargaining between the social partners, i.e. self-regulation within tight legal framework. The corporatist character is also reflected in the fact that pension funds are organised on the basis of industry or business sectors (Delsen, 2008).

Pension funds address the supplementary old age provisions on top of the basic public old age pension, the General Old Age Act (Algemene Ouderdomswet – AOW). Occupational pension schemes are supplementary to the AOW state pension. The AOW benefit is therefore a factor included in most calculations of second pillar pension schemes in order to arrive at the 70 % of final earnings referred to above. Below this so-called AOW franchise, employees are covered by the public pension scheme. Only workers with a wage above this franchise are building up an occupational pension. In the past, many pension funds used a franchise that was derived from the level of the AOW (see Table 2). Since a considerable part of the pension liabilities in the second pillar are based on the last actual final pay, including the AOW franchise, a freeze or decrease of the AOW benefit imply that the supplementary occupational pension has to be increased: privatisation is creeping in. A hidden redistribution within and between generations is the result.
Table 2. Selection of types of franchise (percentages of active participants), 1998-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Public old age pension (AOW)</th>
<th>Fixed (indexed) amount</th>
<th>No franchise</th>
<th>Number of participants (1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>49.1</td>
<td>34.5</td>
<td>14.4</td>
<td>4,822</td>
</tr>
<tr>
<td>1999</td>
<td>41.8</td>
<td>39.3</td>
<td>16.4</td>
<td>4,931</td>
</tr>
<tr>
<td>2000</td>
<td>40.7</td>
<td>38.9</td>
<td>16.2</td>
<td>5,177</td>
</tr>
<tr>
<td>2001</td>
<td>37.5</td>
<td>40.1</td>
<td>18.3</td>
<td>5,391</td>
</tr>
<tr>
<td>2002</td>
<td>27.4</td>
<td>47.3</td>
<td>19.8</td>
<td>5,905</td>
</tr>
<tr>
<td>2003</td>
<td>22.3</td>
<td>58.3</td>
<td>14.6</td>
<td>6,220</td>
</tr>
<tr>
<td>2004</td>
<td>22.1</td>
<td>60.7</td>
<td>12.4</td>
<td>6,052</td>
</tr>
<tr>
<td>2005</td>
<td>23.6</td>
<td>58.9</td>
<td>15.1</td>
<td>6,246</td>
</tr>
<tr>
<td>2006</td>
<td>23.3</td>
<td>55.8</td>
<td>15.7</td>
<td>6,217</td>
</tr>
</tbody>
</table>

Source: DNB.

More and more pension funds no longer directly link the franchise to the public AOW pension, but applied a fixed amount thereby shifting the political risk of lower public benefits to the workers (see Table 2). These changes are partly related to cost containment. In 1998 49.1 % of all active participants had a franchise linked to the public pension. In 2006 this had dropped to 23.3 %. In the same period the proportion of active participants with the indexed fixed amount franchise increase from 34.5 % to 55.8 %. For around 16 % of the active participants no franchise applies. In the pension funds that do not have a franchise all employees, including low-income groups, accrue supplementary pension rights. The accrual rate may vary between salary groups.

5. Costs of occupational pension schemes

According to statistical data of Statistics Netherlands (CBS), Dutch employers pay about three quarters of the total contributions to occupational pension schemes; one quarter is paid by employees. In the majority of cases premiums are levied on wage income above a certain franchise.
In the Netherlands between 1980 and 2004 pension contributions increased from 7.6 billion euro to 30.3 billion euro. The increase was particularly strong after the year 2000 (see Figure 4). After 2000 also the amount of pension contributions collected by insurance companies has increased substantially. The development in the pension contribution rate is U-shaped. In percentages of the wage bill, pension contributions decreased from 10.6 % in 1980 to 6.6 % in 1996 (pension holidays). In the early 1990s, as pension funds were allowed to discount their liabilities at a fixed rate of 4 %, high interest rates provided them with ample reserves. Low pension premiums are in the interest of the employers (profits), employees (wages) and the management (policy room). Pensions were increasingly financed by returns on investments in stead of premiums by active members. Pension premiums were set below cost price level. Before the crash in 2000 this was no problem. High returns on equities paid for the price (inflation) indexation of pensioners and the increase of pension liabilities. In the 1990s, the drop of the capital market interest rate to an historical low level lead to a sharp increase in the fair value of pension fund liabilities. These developments caused a reduction of reserves. The erosion was even deepened by the occurring shift towards high-risk investments.
After 1996 the contribution rate increased. In 2000 the pension contribution rate was 7.6% and then rose to almost 15.6% of the wage sum in 2004. According to Statistics Netherlands between 2000 and 2004 the share of pension premiums payable by employers doubled from 4% to 8% of the labour costs. The pension contribution rate as well as the development in this rate vary between sectors of activity. The strongest increase was in mining, quarrying and extraction, from 3% to almost 13%; the lowest increase was in hotels and restaurants, from 3 to over 4% (CBS, 2006). In 2004 pension premiums varied from 4% for butchers to 29% in cardboard.

**Table 3.** Pension contribution in the government and private sector, 2002-2007 (percentages of gross wage)

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms</td>
<td>10.5</td>
<td>12.9</td>
<td>14.2</td>
<td>14.4</td>
<td>14.6</td>
<td>14.9</td>
</tr>
<tr>
<td>Government</td>
<td>14.5</td>
<td>16.9</td>
<td>18.0</td>
<td>18.0</td>
<td>18.0</td>
<td>18.0</td>
</tr>
</tbody>
</table>

Source: CPB.

Table 3 shows that the increase of pension contribution as a percentage of gross wage in the private and public sector alike was relatively strong in the years immediately after the 2001/2002 financial crisis. After 2002 the values of shares and solvency increased again. However, this has not ended the Dutch pension crisis. To restore funding ratios in the private sector contributions increased from 10.5% in 2002 to 14.2% in 2004, and in the public sector from 14.5% to 18% of gross wages. Table 3 also indicates that in recent years the contribution rates have stabilised in the public sector at 18% and have shown only a modest increase in the private sector. A contribution freeze combined with uncertain indexation, conditional on the financial results of the pension fund, may *de facto* imply a shift towards defined contribution (Delsen, 2008). Risks are shifted towards the active participants as well as the pensioners.

The administrative and investments costs of private pension funds are of great importance to both employees and employers, as they potentially erode the value of wealth accrued for retirement or, alternatively, increase the costs of retirement security. Empirical results indicate considerable lower costs and better results of pension funds relative to insurance companies. Operating costs are lowest for large compulsory industry-wide funds. Defined contribution plans are far from cost effective (see Delsen, 2008; Bikker and De Dreu, 2006). The collective nature of the pension funds implies that participants automatically contribute enough towards their old age financing while professional asset managers make sure that
the contributions are well invested from a risk-return perspective. This ensures that every individual is provided with a reasonable pension benefit after retirement. Collective pension systems are cost efficient, as they exploit economies of scale, and enable inter and intra generational risk-sharing which is welfare-enhancing to risk-averse individuals (Kakes and Broeders, 2006: 32). The recorded increasing importance of insurance companies in pensions may be detrimental to the cost effectiveness of the Dutch occupational pensions system.

6. Coverage of occupational pension schemes

The adequacy of private pension arrangements depends on: the coverage, the type of pension, the vesting rules, the portability of accrued rights and the indexation. The Dutch pension scheme is both effective and cost efficient: large numbers of employees are quite inexpensively insured, at the same time (Delsen, 2008). In the Netherlands both the number of participants and the number of occupational pension recipients are among the highest in the EU. In the 1998-2006 period the number of active members increased in absolute terms from 4.8 million to 6.2 million employees (see Table 2). Over 90 % of the Dutch employees participate in occupational pensions. A pension scheme is part of the employment conditions laid down in an agreement (which may be a collective labour agreement). Employees must in many cases take part or do automatically take part in a pension plan linked to the contract of employment in the context of a collective labour agreement. This “employment related mandatory participation” by employees is more important than the legal extension of branch-level collective agreements between trade unions and employers' organisations to all industry members, that obliges employers to take part in industry-wide pension fund.

The Pension Act allows the employer to exclude certain groups of employees from the pension scheme, unless the collective labour agreement makes acceptance obligatory. An hours-of-work threshold is forbidden. A minimum wage barrier is allowed as a threshold. Many part-time workers are still being excluded from pension plans, because they have flexible labour contracts. A vesting period may apply. Although there is no legal maximum vesting period for supplementary pension schemes, only very few pension funds apply one. Vesting periods are typically shorter than one year. As a result of the growing amount of flexible workers and increasing labour mobility, a general compulsory pension would be the logical next step. In 2001 certain categories of employees (6 % of active participants) were excluded from pension schemes. Three quarters of them concerned fixed-term contract (4.5 % of active participants). A justified reason could be a very short duration and participation would result
in a high administrative burden (Directive 1999 based on ETUC, UNICE and CEEP framework agreement).

The vast majority of employees are covered by pension funds without a waiting period. Of the total of more than 6 million members of pension schemes and insurers, approximately 7% have a supplementary pension scheme with a waiting period. The vast majority has a waiting period of one year or less, and this waiting period counts with retroactive effect towards pension accrual.

In 2001 about 81% (84% in 1996) of the funds covering 45% (74% in 1996) of the active participants applied a minimum entry age. It offers the opportunity to exclude holiday workers. The Foundation of Labour is in favour of abolishing the minimum age limits. Between 1998 and 2001 the relative number of active participants for which no age barrier applies increased from 31% to 55%.

For most disabled individuals and early retirees private pension contributions continue: contribution free continuation of pension accrual. They continue to build up rights up to the age of 65. Unemployed individuals only partly build up pension rights. This fraction of the duration of wage related unemployment benefits varies considerably between sectors of activity: over 90% in agriculture and building; less than 15% in financial services and other services; ABP 50%; Industry and mining 44%. Continuation of pension accrual is most frequent in case of unpaid leave (87%), care leave (74%), and sabbatical leave (58%) (SER 2002). The Foundation of Labour (STAR, 2001) requested the parties involved in supplementary pensions to consider offering option to continue pension accrual in the case of parental leave, care leave or sabbatical leave.

7. From defined benefit towards defined contributions

In the Netherlands most active members of the second pillar pension schemes are in plans of the defined benefit type. Unlike in the UK, in the Netherlands, over the passed decade there has not been a shift from defined benefits (DB) to defined contributions (DC). In 1998 over 99.2% of the active members were in defined benefit plans; in 2006 this still was 93.4% (see Table 4). The major change concerns a change within the defined benefits plans from defined benefit final salary to defined benefit average salary plans. Measured in number of participants the shift is stronger than measured in number of pension funds. In 1998 two thirds of the active members were covered by a final-pay plan. In 2006 this was only 10%. In 2006 three quarters the active members were covered by an average pay system; in 1998 this was one quarter.
## Table 4. Type of pension plans, percentages of active members, 1998-2006

<table>
<thead>
<tr>
<th></th>
<th>Final pay</th>
<th>Average pay</th>
<th>Mixed schemes</th>
<th>Fixed amount</th>
<th>Total DB plans</th>
<th>DC plans</th>
<th>Total (1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>66.5</td>
<td>25.0</td>
<td>6.0</td>
<td>1.7</td>
<td>99.2</td>
<td>0.5</td>
<td>4,822</td>
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<td>1999</td>
<td>59.6</td>
<td>31.2</td>
<td>6.2</td>
<td>1.6</td>
<td>98.6</td>
<td>0.2</td>
<td>4,931</td>
</tr>
<tr>
<td>2000</td>
<td>58.7</td>
<td>30.6</td>
<td>6.2</td>
<td>1.4</td>
<td>96.9</td>
<td>0.2</td>
<td>5,177</td>
</tr>
<tr>
<td>2001</td>
<td>56.1</td>
<td>32.2</td>
<td>6.5</td>
<td>1.3</td>
<td>96.1</td>
<td>1.8</td>
<td>5,391</td>
</tr>
<tr>
<td>2002</td>
<td>54.3</td>
<td>31.6</td>
<td>6.8</td>
<td>1.1</td>
<td>93.9</td>
<td>2.4</td>
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<td>0.9</td>
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<tr>
<td>2004</td>
<td>12.0</td>
<td>72.6</td>
<td>8.6</td>
<td>1.0</td>
<td>94.2</td>
<td>2.3</td>
<td>6,052</td>
</tr>
<tr>
<td>2005</td>
<td>10.6</td>
<td>74.1</td>
<td>8.1</td>
<td>0.9</td>
<td>93.7</td>
<td>3.1</td>
<td>6,246</td>
</tr>
<tr>
<td>2006</td>
<td>10.1</td>
<td>76.0</td>
<td>7.1</td>
<td>0.9</td>
<td>93.4</td>
<td>3.6</td>
<td>6,217</td>
</tr>
<tr>
<td>Change 1998-2006</td>
<td>-55.4</td>
<td>51.0</td>
<td>1.1</td>
<td>-0.8</td>
<td>-5.8</td>
<td>3.1</td>
<td>1,395</td>
</tr>
</tbody>
</table>

Source: DNB.

In a final-pay plan the risk of disappointing yields lies completely with the pension funds, not with the individual participant. The final-pay plan is not only an open ended system, but also leads to a subsidy, through the back service obligations, for the career maker whose salary shows a sharp increase towards the end of their career ("perverted solidarity"). This introduces a pay-as-you-go element in the supplementary pensions and makes the pension premium susceptible to demographic developments.

Employees whose salaries peak early in their career are better off with an average pay plan. With a standard average-pay plan, a fixed percentage of those yearly wages is accumulated per year. The total pension then consists of the total of these yearly accrued pension rights. In an average-pay plan with indexation, the accrued pension claims are increased annually with the inflation percentage for that year. This provides better protection against the risk of inflation. A third variant is that in the standard average-pay plan an increase takes place toward the level of a final-pay plan, provided the means to do this are available. The investment risk lies completely with the pension funds. In the average-pay plan, there is substantially less back service than in the final-pay plan. The average-pay plan also decreases the pay-as-you-go element in the supplementary pensions.

The mixed pension plans concern a combination of DB and DC. For instance, DB up to a certain salary ceiling; beyond this ceiling a DC type plan, notably in company pension funds.
The fixed-amounts system applies to less than 1% of the active participants (see Table 4). In this system, the pension is preset to a certain amount, regardless of the pay earned. This system, therefore, is quite similar to ordinary life insurance. The fixed-amounts system is prevalent in sectors where short-term contracts are common, such as the hotel and catering industry.

Defined-contribution systems (about 3% in 2006) are still rare in the Netherlands, although its number increased considerably between 1998 and 2006. Future pensions depend on uncertain investment returns. Employees bear the full investment risk, work inability risk, longevity risk and risk of inflation. As DNB considers mixed schemes to be DB plans, the developments in DC plans are underreported.

Measured by active membership, the switch from final pay to average pay has been more pronounced in industry-wide funds, relative to company pension funds. Here ABP and PGGM set the scene in 2004 (Delsen, 2008). Company pension funds on the other hand have switched more from defined benefit plans to defined contribution plans. These are mainly located in the smallest company and branch pension funds and with the professional pension funds.

8. Redistribution of risks

There are fundamental differences in the objectives and structure of pension funds and insurers. The basis mission of insurers is to make profits, besides the continuity objective. Pension funds do not make profits for the shareholders. Profits stay within the funds to improve the benefits for the beneficiaries or decrease contributions of the members. There also is an essential difference in structure: Within industry-wide pension funds contributions are set on the basis of an average premium for the sector as a whole. Hence, all employees of the company or of the sector concerned pay the same percentage of the wage as pension contribution, irrespective of age, health and wage, and also pension accrual is the same percentage. Solidarity goes beyond the purely insurance technical basis: solidarity between active and retired workers (inflation risk), between younger people and the elderly (back service rights); between men and women; between healthy people and disabled people (obligation to accept); between higher and lower wage earners (the biometric risks).

Defined benefits provide against financial risks. Moreover, the defined benefit type pension schemes allow intergenerational solidarity within capital funding. Compulsory participation facilitates intergenerational risk-sharing in defined-benefit schemes. Recent calculations indeed show that in the Dutch supplementary pension system because of average premium there is considerable redistribution between generations.
from young to old participants and within generations, from people with a flat career to people with a steep career from men to women and from people with a low life expectancy to high life expectancy and from lower educated towards higher educated (Bonenkamp, 2007). Collective arrangements allow for intra- and intergenerational risk-sharing. Intragenerationally, in the Dutch case the individual longevity risk can be almost entirely diversified by pooling, i.e. pension risks are spread over a large number of persons. Also the inflation and investment risks can be shared on a broader scale and spread over a longer period of time (Kakes and Broeders, 2006).

There are trade-offs between contribution levels, benefit security, contribution volatility and benefit level. Increasing the benefit security implies a reduction in investments risk leading to lower expected benefits or greater reliance on contributions (higher or more volatile) (Kakes and Broeders, 2006). The design of pension plans is important for the allocation of risks among stakeholders. Full indexation final pay plans are accompanied by both higher risk of nominal underfunding and a high volatility of contribution rates. Fixed contribution rates are accompanied by high indexation risks.

Pension funds can be considered a zero sum game, for at a specific moment in time the total value of all claims can never be larger than the total capital of the fund at that moment (Koedijk and Slager, 2006). Who bears the risks and who has the right to the surplus build up by the pension funds? Hence, pension plan redesign also implies value transfers between plan members and other stakeholders and risk reallocation. Pensioners considered themselves victims of contribution holidays in the 1990s. The largest trade union federation FNV opposes defined contribution schemes. FNV is in favour of – for solidarity reasons between generations - conditional indexation for active members, sleepers and pensioners equally dependent on returns. Also the maturation of pension funds may cause trouble. As pension funds exist for longer than 40 years, an increasing number of elderly have a full pension: an increasing pension liability relatively to the wage bill. This undermines the effectiveness to use the contribution rate as a steering instrument. The same applies to the ageing. As a result returns become more important, and premiums are less so a policy instrument. This forces to make premiums cost bearing relative to pension obligations. Windfall returns have to be reserved to compensate for future disappointments (FNV, 2003). Unions in the Netherlands had to strike a balance internally, between the interest of younger workers and the interest of older workers and pensioners. Moreover, in most cases union representatives in pension boards are often closely involved in wage negotiations. According to Ponds and Van Riel (2007) this
explains why unions were willing to spread risk more broadly between active members and pensioners. An exclusive reliance on contribution rates to absorb risks would run the risks of alienation of younger workers and put a heavy burden on wage negotiations, as employers would try to shift pension costs to workers.

Indexation is not a right; the majority of funds (some 65 %) only incorporate an intention to provide indexation. Most pension funds in the Netherlands aim at wage or price indexation. It is, however, not guaranteed but conditional on the financial position of the fund (coverage ratio). In recent years many pension funds have constructed more explicit indexation rules. Dutch pension funds introduced flexible indexation as a primary method to enhance solvency risk management. Conditional indexation of benefits allows passing on disappointing investment results or demographic risks in part to the pensioners themselves (Van Ewijk and Van de Ven 2003). In a final wage system only the already retired suffer from incomplete indexation (Van Ewijk, 2005). In an average salary scheme conditional indexation becomes more effective, for it applies to both active members as well as pensioners. Hence, it allows shifting part of the inflation and investment risks to the active fund members.

The switch from final pay to contingently indexed average pay plans plus the level of certainty chosen is a partial shift towards DC schemes (Kakes and Broeders, 2006). Solvency-contingent indexation implies that the Dutch average wage scheme can be considered hybrid DB-DC plan, keeping a midway position between a traditional DB plan with flexible contributions and well-defined indexed pensions and a DC plan with uncertainty as to the final pension result because of the uncertainty on the rate of return on investments.

DB pension funds have to cope with rising costs, while the 2005 International Financial Reporting Standards (IFRS) and the 2007 Financial Assessment Framework (FTK) for pension funds rules mean that DB pension funds as a cost item weigh more heavily on the balance sheet of the sponsoring company. There are economic considerations to remove pension liabilities from the balance sheet. The market valuation element of the FTK makes funding levels volatile. In a DC system funding shortfalls are no longer the responsibility of the company, explaining why several enterprise pension funds recently switch from DB to DC. The switch to average pay DB schemes and the introduction of DC elements can be seen as a move to more hybrid systems in which investment risk is more equally shared between sponsor and the participants (Kakes, 2006).

A number of enterprise pension funds have changed from DB plan into collective DC plan with fixed contributions but flexible benefits depen-
ding on the financial situation of the pension fund (Ponds and Van Riel, 2007). Collective DC concerns DC for sponsor, employer pays fixed and hence predictable percentage of the wage bill and DB for participants. Employers and employees contribute a fixed percentage of wages to these plans. The percentage is designed to assure generally that the plans are well funded. Employers have no additional liability if the investments of the plans perform poorly, and receive no benefit if the investments perform well. The risks of unexpected investment losses and longer than anticipated life expectancies is entirely borne by the employees and retirees as a group. If a collective DC plan suffers investment losses and becomes underfunded, the plan’s governing body, which has representatives of employers, employees, and retirees, decides what adjustments should be made. The adjustments can be an increase in contributions by employees (but not employers) or elimination of cost-of-living adjustments, and, in extreme cases, reductions in the benefits earned in future years. If the plan becomes overfunded, the workers, rather than the employer, benefit.

9. Governance structure within pension funds

The political responsibility of the occupational pensions is with the minister of Social Affairs. The social partners are responsible for the contents of the schemes. The control of pension fund strategy rests with the directors. Based on the Pension Act members of the board of directors must be composed equally of employee and employer representatives. No suitability requirements of members are stated.

Since March 1990 based on the PSW Act pension funds are obliged to introduce a participants board with only advisory authority if this is requested by at least 5% of the participants (active or retired). Members are representatives of employees, sleepers and pensioners. The aim was to strengthen the position and of pensioners within pension funds. The PSW Act describes on what decisions of the management advice of the participants’ board is required. These legal advisory rights concern for instance changes in statutes, pensions, and liquidation. Research by Regioplan (2001) shows that when all plans are realised, in both enterprise and branch pension funds for around 90% of active members and pensioners some form of participation applies; participant board or management board representation. In most cases the authority is in line or goes beyond the PSW Act.

December 2002, the CSO central elderly organisation, and the social partners in the Foundation of Labour signed an agreement that elderly organisation were offered a seat in the management boards of pension funds. This only concerned enterprise pension funds. Recently the older
people (pensioners) got a say in the pension funds (a right to vote) in the boards of the pension funds and co-decide on premiums and benefit levels. Also the position of the participant boards is strengthened. In case of merger, take-overs or liquidation of a pension fund the board has the right to agreement that can be commanded at the Chamber of Enterprises (Ondernemingskamer). Before that, the funds were run by representatives of the social partners on a 50-50 basis based on the PSW Act. Trade unions that represent the employees were also considered to represent the interests of the pensioners. Now employees and pensioners are equally represented in the board of directors. They receive a maximum of half of the employee seats. The seats are proportionally represented: according to the ratio of employed/retired participants. The social partners keep their majority.

The 2007 Pension Act prescribes a participant board for all industry-wide pension funds in which pensioners and employees are equally represented. Enterprise pension funds can choose. The large enterprise funds with more than 10% old age pensioners are required to investigate the manner in which the old age pensioners want to be represented within the pension fund. Depending on the outcome of this investigation the pension fund must either set up a participation council or include old age pensioners on its management board.

Following the Guidelines for Pension Fund Governance drawn up by the social partners in the Foundation of Labour (2005) the new Pension Act also obliges the pension funds to establish two new bodies by January 1, 2008 at the latest: an Internal control committee and an Accountability body. The Internal control committee is comparable with the Supervisory Board of a private enterprise. Every pension fund must have a body that is responsible for the internal supervision of the performance of the (management of) the fund. The Act provides several options, for example a one tier board, an audit committee or a review committee. The body for internal supervision must include at least three independent experts. The findings of the internal control committee are included in the annual report and discussed by the Board and the Accountability Body. The Accountability Body, in which employees, pensioners and employers are, in principle, evenly presented, is comparable with the share-holders’ meeting of a private enterprise. The management of the pension fund is accountable to this body (and as such indirectly to all those concerned). The Accountability Body will issue a judgement on the actions of the board of the pension fund on the basis of the annual report, the annual accounts and the findings of the Internal Control Committee.

Most pension funds management boards have delegated day-to-day decisions to an internal board of executive directors. The management
board can delegate operational tasks to an external body. Currently pension fund board and management of the pension fund organisation are focusing on further professionalising asset management as their core competence or (partially) outsourcing of these activities to external asset managers, especially for international and foreign securities, participations and real estate. These institutions must be licensed by the Dutch Securities Board (Stichting Toezicht Effectenverkeer). The need for further professionalism is demonstrated by a new role of pension beneficiaries that have not been represented directly in the pension fund’s management. Many pension funds have contracted out the management of the pension funds to competitive fund managers.

10. Supervision of pension funds

Apart from internal and external actuaries and accountants, the pension funds are under the supervision of the private Insurance Chamber/Insurance Supervisory authority (Verzekeringskamer), on behalf of the government. In 1992 it was given autonomy as an administrative authority with its own budget. In 2001 the Insurance Chamber was renamed Pension and Insurance Supervisory authority (Pensioen- en Verzekeringskamer, PVK). In 2004 the Dutch central bank and supervisory authority for banks (De Nederlandsche Bank, DNB) and the PVK merged. This consolidation is generally expected to enhance the quality of supervision on pensions and strengthen the supervisory authority.

Pension funds are legally obliged to provide the supervisory authority on an annual basis with detailed information on benefit payments and investments of the funds. In the “Actuarial Principles for Pension Funds”, which became effective at the end of 1997, PVK introduced a sufficiency test for the funding position based on assets valued at market rates and nominal liabilities discounted at a fixed rate of 4%. In addition PVK imposed a ceiling on the rate of returns on investments which funds can use, including 5% on bonds. In case assets fall short of liabilities PVK discusses actions to be taking with the pension fund.

In response to the financial crisis, the PVK tightened up the regulations for pension funds and intensified their supervision. PVK required full funding and additional reserves (buffers) to compensate the higher risk involved. September 2002, the PVK required that on average the pension fund should enough capital plus reserves to cover the liabilities for 130%; 45% of the funds, including ABP and PGGM, had asset-liability coverage ratios of less than 105%; the basic funding requirement. In addition there is an indexing buffer and an asset buffer. PVK gives the funds until 2010 to establish the norm. As most funds did not comply apart from selling shares to comply with the demanded buffer, contributions
were raised, benefits were frozen, and pension schemes of the employed
were sobered, including partial indexation, limiting the accrual rate, and
a massive shift from final pay to average pay schemes. Increasing share
prices may actually cause problems for the pension funds, for PVK will
demand larger reserves. This forces certain pension funds to sell shares,
to increase premiums further or to cut in pension claims.

March 2004 Dutch Parliament approved the “Principles of the new Su-
pervisory Framework of Pension Funds” that replaced the 2002 PVK
rules and that are included in the new 2007 Pension Act. These prin-
ciples reflect a political consensus on the trade-off between certainty and
security of pension provisions and economic costs. The Dutch govern-
ment wanted to make the rules for pension funds less tight: employees
running a risk is allowed. Also employers and employees were in favour.
This was a major breakthrough, for until recently absolute security was
the rule. But the latter is expensive; it requires large financial reserves by
the pension funds to cover investment and other disappointments. Less
certainty implies lower premiums for employers and employees. The risk
exists that the pension benefit is lower than expected in case of dis-
appointments. Following these 2004 principles, the actual value will be
aligned to the definition of fair value for reporting purposes of the Inter-
national Accounting Standard Board. Apart from assets and liabilities to
be valued against market values, profits and losses in the pension fund
portfolio should be activated on the profit and loss account immediately.
The minimum capital requirement will depend on the institution’s actual
risk profile. Pension funds with higher (lower) exposure to stock market
risks should aim for a corresponding higher (lower) solvency ratio. Fair
value increases volatility in contributions and indexation, focuses more
on the short-term nominal commitments, while pension funds aim at long
term real ambitions, has a procyclical impact on the economy and ac-
cumulates prudence.

The 2007 Financial Assessment Framework (FTK) is based on a marked-
to-market value of assets and liabilities and three tests to evaluate the
ability of pension funds to meet their obligations and an obligation to
pension funds to clearly inform scheme members of their policy on in-
dexation. The financial buffer is the surplus i.e. the difference between the
marked-to-market value of assets and that of its liabilities. The surplus
serves various purposes: permits risk absorption without underfunding
(risks being shifted to the future or pension entitlements must be cut);
contributes to costs of living adjustment; pension benefits keep pace
with inflation or wage growth (indexation); permits fairly stable develop-
ment of pension contribution and avoids procyclical interaction between
pension funds and overall economy.
Three interlinked tests will be used to assess the solvency of the Dutch pension funds:

- A minimum test requires the present value of the assets, based on marked-to-market calculations, to exceed the present value of the contracted liabilities by at least 5%, i.e., pension funds should always maintain a minimum funding ratio of at least 105%. If assets drop below 105% of liabilities, the fund has only one year to recover. In exceptional cases, the supervisor can prolong this recovery period.

- A solvency test on the financial position, to verify whether the pension fund can pass the minimum test one year from now with a probability set at 97.5%; in order to limit the risk of underfunding, this requires a 130% funding ratio. The tests only apply to guaranteed (in practice nominal) pension rights. For conditional rights (indexation), funds are not obliged to reserve extra capital, provided the conditional nature of the indexation is made clear to members so that they cannot gain the false impression that they are entitled to it. Moreover, in order to maintain consistency between the fund's ambition, its communication and its policy, pension premiums should rise with the indexation ambition.

- A new continuity test on long-term developments in solvency levels; the pension fund should indicate their expectations of the development of the funding ratio on a 15-year horizon.

Due to the short-term solvency requirement and to the valuation of liabilities in a marked-to-market basis, liabilities will become more volatile and the balance sheet of the funds will be more sensitive to the interest rate risk. For the actuarial fixed discount rate is replaced by the actual yield curve of interest rates prevailing in the market. Fair value accounting will lead to higher funding costs of pensions. Pension funds have two options: less risk taking or higher solvency reserve position. Adjusting the pension promise is also an option. The first impact, which is probably the most obvious, is that Dutch pension funds will need to invest more in long-dated fixed-income products to reduce the duration gap between assets and liabilities and to cool down the impact of interest rates changes on the cover ratio. Reducing the duration gap between assets and liabilities leads to a decrease in indexation cuts and average contribution. Investing in bonds may imply lower returns and higher pension contributions but also more certainty to their pension (Kakes and Broeders, 2006).

Pension fund supervision by the DNB is focused on continuity of pension entitlements. The focus is on the coverage that guarantees that the
paying of the pensions and the realisation of the indexation ambition of the funds. There is a trade-off between indexation ambition and required coverage rate. The pension fund manager is between the participant board with only an advisory role and the far more professional supervisor, the DNB. Will the interest of the participants be presented well in this context? This very much depends on the financial and material incentives. Who should approve the salary policy, the participants or an accountability board? The latter is not addressed in the Pension Act. The room to play for the managers depends on avoiding conflicts with DNB. This may create an incentive to risk avoidance and shorttermism in investment policy not to endanger the coverage rate (Koedijk and Slager, 2006). This may be at the expense of returns in the long run and hence of the possibility to realise the indexation ambition (Arnold, 2007). A conservative asset mix is not attractive for younger workers as the low return on assets imply higher contributions (Ponds and Van Riel, 2007). Incentives and salary of managers deserves more attention.

11. Macroeconomic effects

The Dutch pension funds contribute to the affluent availability of capital. Dutch pension funds also invest in hedge funds like Centaurus and the American Paulson & Co. In their role of indirect capitalists the Dutch employees finance through their pension funds the take over of their own enterprise and with that, maybe also the own job security.

Labour mobility may be hampered when accrued pension rights are not fully transferable. There may be a trade-off between micro-prudential interests and macro-economic interests. Notably in DB schemes pension fund behaviour is procyclical, adding to the business cycle situation. Procyclical effects can be limited by controlling pension risks (Kakes and Broeders, 2006).

Table 5. Selective macro-economic performance measures in the Netherlands, average annual change, 1996-2005

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>GDP (volume)</td>
<td>3.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Pension contribution (in percentage points of gross wage enterprises)</td>
<td>0.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Unit labour costs</td>
<td>0.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Price competition</td>
<td>1.6</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

Source: CPB.
Table 5 shows that the change in pension contributions (in percentage points of gross wage in private sector) from 0.1 percentage point between 1996 and 2000 to 1.7 percentage points between 2001-2005. The development in the invested capital by pension funds in combination with the pension premium policy contributed to the drop in private consumption and because of the unique funded pension system the impact on the business cycle on pension contributions was larger than in other countries; the recent recession was the longest after World War 2. Increases in contributions in particular have a negative effect on the economy, the effects of an indexation cut leads to more balanced distribution of the burden between active members and pensioners (Westerhout et al., 2004).

References


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**Endnotes**

1 The BRF Act contains similar provisions to the BPF Act, with regard to compulsory membership of an occupational pension schemes.