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9 Pension Reform
Issues in the Netherlands

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9.1 Introduction

The pension system of the Netherlands consists of three pillars: (1) a state-financed basic pension at minimum wage level, supplemented by (2) a collective pension financed by employees and employers typically at a level of 70 percent of prepension gross earnings (compulsory pension funds); and, on top of that, (3) an old age provision financed by an individual person (free choice of saving, investment, and life insurance products). The basic pension is financed on a pay-as-you-go (PAYGO) basis through premium payments as well as through the general government budget, while the financing of both of the supplementary pension components is funded on a capital basis. The basic features of this three-pillar pension system were established immediately after World War II.[1] Soon after, large part of the labor force was participating in premium payment and the accumulation of pension saving began.

The mix within this three-pillar system is such that the Netherlands currently boast what is perhaps the most funded collective pension system in the world. Although the country may thus seem relatively well placed to cope with the prospective increasing of the pension burden, several as-

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1. See Tulfer (1997) and Lutjens (1999) for the history of pensions and pension reform in the Netherlands.

pects of the Netherlands pension system remain that would benefit from reform.

This paper first summarizes, from an international perspective, the financial challenges for the Netherlands pension system given the prospective population aging (section 9.2). Subsequently, in section 9.3, the main features of the three-pillar system are explained in more detail. Issues for reform are the subject of section 9.4.

9.2 Aging and the Costs of Financing Old Age Income

This section investigates the extent to which the aging of the population is expected to lead to deficiencies in the financing of pension benefits. It describes the level and composition of current benefits, and subsequently assesses potential difficulties in continuing to finance this benefit system in the future. First, however, the prospective population aging itself is placed in an international perspective.

Projections indicate that the Netherlands will be confronted with a substantial aging of the population (table 9.1). In 2000, the number of persons older than age sixty-five relative to those aged twenty to sixty-five stands at about 22 percent. This is roughly expected to double to something in the order of 40 percent or higher in 2050.[2]

Will such a substantial aging of the population pose major financing difficulties? That depends on the level of benefits, their composition between funded and nonfunded components and the degree to which each component's financing source is adequate in view of the prospective aging.

Given myriad institutional differences it is difficult to make precise international comparisons of the level of benefits. Nevertheless, some indication can be gleaned from replacement ratios, defined as disposable income during retirement as a percentage of disposable income preretirement. For most countries within the Organization for Economic Cooperation and Development (OECD) area, this ratio typically is on the order of 70–80 percent. Recent computations tend to place the Netherlands at the high end of this range (e.g., OECD 1998, 1999).

Can these benefits be financed when recourse to them rises with the increasing number of pensioners? The prospects in the case of the Netherlands are as follows.

2. Population projections may fluctuate over time; compare the numbers of table 9.1 with (for example) Kotlikoff and Leibfritz (1998, quoting *World Bank Projections* 1994). Table 9.1 for the Netherlands is based on Central Bureau voor de Statistiek (CBS; 1999), the most recent national population forecast, also used in recent studies such as Ministerie van Financiën (2000) and Ewijk et al. (2000). Employing different methodologies, Eurostat (2000) see the ratio of persons aged sixty-five and older to those aged twenty to sixty-five increasing from 22 percent in 2000 to 45 percent in 2050, and United Nations (1998) see it increasing even to 55 percent. The former projection lies within the 95 percent confidence band of the CBS projection; the latter does not.

Table 9.1 Population Aging

	2000	2050	Increase
Europe			
Spain	27	66	39
Italy	29	67	38
Germany	26	53	27
France	27	51	24
Belgium	28	50	22
United Kingdom	26	46	20
Netherlands	22	40	18
Denmark	24	42	18
Sweden	30	46	16
Other OECD			
Japan	27	64	37
Canada	21	44	23
Australia	20	40	20
United States	21	39	18

Sources: CBS (1999) for the Netherlands and Eurostat (2000) for other Europe; United Nations (1998) for other OECD.

Notes: Persons above age sixty-five relative to persons aged twenty to sixty-five; in percent.

9.2.1 The First Pillar

Until a few years ago, the first pillar (*Algemene Ouderdoms Wet* [AOW], the general old age law) was financed exclusively on a PAYGO basis. Premiums were paid by employees at a rate of about 17–18 percent of the first two brackets of income taxation (see the next section for more detail). Without further policy action, this rate would be set to rise considerably with the upward trend of the number of benefit recipients relative to the active labor force. This would place upward pressure on the wedge between gross and net earnings, and thus erode incentives to work.

The government has taken two initiatives to help avoid this. First, as of 1998 it has embarked on a temporary, earmarked reduction of the public debt until 2020 that will subsequently be used up for financing the AOW peak of 2020–50. This is the so-called AOW Fund, a "virtual" fund within the government budget and economically meaningful to the extent that it is reflected in declining public debt. In 2000 the fund's size is a mere 1.8 percent of gross domestic product (GDP); in years to come it will be fed with annual contributions on the order of 0.6 percent of GDP. This is projected to add up to a size sufficient to absorb the *temporary* hump of AOW costs during 2020–50. Current estimates show that the accrual of the AOW Fund during 1998–2002 indeed goes hand in hand with (much more substantial) debt reduction; the ratio of public debt to GDP is projected to fall from 70 percent in 1997 to 50 percent in 2002.

Second, as of 1998 the AOW premium rate is maximized (at a level of 18.25 percent of the first two income tax brackets). AOW costs rising above this level, corresponding with about 5 percent of GDP, will be financed by contributions from the central government budget. Current projections indicate that such contributions will have to begin from about 2010, climbing to a permanent level equal to 3 percent of GDP as of about 2030.[3] This may be financed by permanently reducing the public debt to GDP ratio before then, making permanent room in the budget through lower interest payments. Recent estimates show that a permanent raising of the annual budget balance by about 0.6 percent of GDP as of today and accordingly a reduction of the debt to GDP ratio to zero within twenty-five years would suffice to absorb both the permanent increase of the AOW burden and the similar rise of public health care expenditure also associated with the aging of the population (Ministerie van Financiën 2000; Ewijk et al. 2000). Alternatively, the structurally higher AOW contributions may have to be financed from higher taxation. The effect of the latter would be that AOW costs will be financed in part by AOW recipients themselves—thereby reducing net benefits in the first pillar. With this premium cap, therefore, there will be less upward pressure on labor tax rates and less adverse incentive and employment effects emanating from rising costs in the first pillar—the more so to the degree that the public debt to GDP ratio can be reduced by more than what is accounted for by the AOW Fund.

As background at this point it is also relevant to note that, more generally, taxes and social premiums have declined significantly in recent years and are set to decline further with the tax reform and reduction package of 2001. Relative to a high in the early 1990s, their total has come down by several percent of GDP and is projected to reach a level below 40 percent of GDP in 2001 (Centraal Planbureau 2000). Having started from a position with one of the highest tax burdens in the world, the Netherlands will begin facing the aging challenge with tax and premium levels below those of most other European countries—(although still substantially higher than those of many competitors in the rest of the world. This is relevant with an eye toward maintaining employment and GDP growth as a basis for financing the costs of an aging population.

9.2.2 The Second Pillar

The second pillar of old age income provisions is already fully prefunded through pension funds, taking into account to an important degree the prospective aging of the population. Furthermore, given the relative im-

3. On top of this, the temporary hump of AOW costs is projected to peak at 1.5 percent of GDP in 2035; see Ministerie van Financiën (2000).

Table 9.2 Pension Fund and Life Insurance Assets in Europe (% of GDP, 1997)

	Pension Funds	Life Insurance	Total
Netherlands	111	33	144
United Kingdom	78	22	99
Denmark	26	65	91
Sweden	42	23	65
Ireland	53	8	61
Finland	17	17	35
Germany	7	8	15
Portugal	12	1	13
Belgium	5	8	12
Italy	3	5	8
France	6	1	7
Spain	5	0	5
Greece	3	1	4
Austria	2	0	2

Source: Data provided by Pragma Consulting, Brussels.

portance of this pillar, it is not surprising that Dutch pension funds are among the largest in the world (table 9.2).

Taken together, the first and second pillars in the Netherlands account for a collective old age income provision typically totalling a level of about 70 percent of gross earnings before retirement (higher when measured net of taxes). This collective provision covers a very high share of the workforce (table 9.3), currently more than 90 percent.

9.2.3 The Third Pillar

Persons not fully covered by the first two pillars may take life insurance provisions for their old age income. Beyond that, such provisions may also serve to supplement the first two pillars at an individual level. As indicated in the introductory section, it is difficult to compare internationally the adequacy of individual old age income provisions. As far as life insurance provisions are concerned, available data suggest that here again the Netherlands stand out, with a relatively high level of accumulated savings (table 9.2). This may reflect in part the advantageous tax treatment of life insurance for old age income, as further explained in the next section.

9.2.4 Summary

As an overall conclusion, the Netherlands' old age system at present is fully and therefore adequately funded as regards the (relatively large) second and third pillars. The (relatively small) first pillar is unfunded, and (taking into account the temporary AOW budget fund) its annual

Table 9.3 **Coverage of Second-Pillar Pensions (mid-1990s)**

	Employees Covered (%)		Employees Covered (%)
Europe		Other OECD countries	
Finland	90	Australia	89
Sweden	90	United States	50
Netherlands	85	Canada	41
Denmark	80	Japan	37
United Kingdom	70		
Germany	46		
Belgium	31		
France	10		
Italy	5		
Austria	4		

Sources: Stanton and Whiteford (1998), Kohl and O'Brien (1998).

financing burden is projected to rise from 2010, to a level permanently higher by 3 percent of GDP as of 2030. Coping with this financing requirement in the years to come, preferably by achieving public debt reduction and thus making budgetary room through lower interest payments, is the remaining challenge in financing retirement income as the population ages. Current estimates show that a permanent raising of the annual budget balance by about 0.3 percent of GDP would suffice.

Finally, it must be noted that all of these quantitative indications can be quite sensitive with respect to underlying assumptions. For instance, Ewijk et al. (2000) computed that a one-year-longer life expectancy would double the required budgetary adjustment.

9.3 The Present Pension System

This section further explains the system consisting of three pillars: basic collective, supplementary collective, and supplementary individual. The third pillar, by its nature, can differ widely by individual; this pillar can be taken to include not only insurance-type products (lifetime annual benefits after retirement) but also more broadly any other types of capital accumulation contributing to income after retirement (saving, investments including owner-occupied housing). Comparisons of its features and relative importance—both between pillars and internationally—are therefore difficult to make.

The sum of the first two pillars is the collective pension. In the Netherlands this typically totals 70 percent of final earnings before retirement,

when retiring at the age of sixty-five after forty years of employment. Precise international comparisons are difficult to come by, but nevertheless this seems to be a fairly usual profile (see Willemsen 1999; OECD 1995, 1998). Within this collective pension total, the first pillar in the Netherlands provides a state pension at the level of the minimum wage.

More specifically, the three pillars are organized as described in sections 9.3.1–9.3.3.

9.3.1 The First Pillar

The first pillar consists of the state social security pension scheme (so-called AOW). Participation is compulsory for all who reside or work in the Netherlands. Its purpose is to guarantee an income from the age of sixty-five. The benefit is flat rate and is linked to the statutory net minimum wage. The accrual rate is 2 percent a year. A full-fledged pension is built up between the ages of fifteen and sixty-five. The contribution is currently 17.9 percent of income (with a general exemption for taxes and social security contributions for tax payers under age sixty-five in the first two tax brackets). Since 1998, the AOW premium has been maximized at 18.25 percent. As soon as AOW costs rise, the remainder will be financed through the central government budget.

The benefit is independent of labor history, contributions paid, wealth, and other old age income. Since 1985, the first pillar benefits for couples have been individualized due to European Commission (EC) legislation. The benefit for a person with a partner is 50 percent of net minimum wage if that person is over sixty-five years of age. If both persons are over sixty-five years, the benefit for a couple is 100 percent. The benefit for a single person over sixty-five years of age is 70 percent of net minimum wage. A benefit is seen as a remuneration for labor in a former period and is taxed accordingly. The gross replacement rate of the national old age scheme amounts to 45 percent of average earnings. The state pension scheme disbursements currently amount to about 5 percent of GDP.

The first-pillar scheme is financed on a PAYGO basis. Additionally, the government has set up a support fund with yearly contributions from the government budget. This AOW Fund, including accumulated interest, will be used to contribute to first-pillar benefits from 2020 onward (see section 9.2).

9.3.2 The Second Pillar

The second pillar concerns labor-related pension schemes, which have an essential social function in the Netherlands because of the limited level of first-pillar provisions. Pension schemes are administered outside the company either by insurance companies (group life insurance) or by industry-wide or company pension funds. Membership by employees is compulsory whenever an employer offers a pension scheme. Employers

within a branch of industry are obliged to take part in an industry-wide pension scheme, whenever participation in these schemes is made compulsory by the Minister of Social Affairs at the request of social partners (representative organizations of employers and of employees) in that branch. More than 90 percent of the working population is currently covered by occupational pension schemes, of which 77 percent belong to mandatory industry-wide pension funds (civil servants included; Verzekeringskamer 2000).

About 9 percent of the working population does not participate in a second-pillar scheme. Of that group, 2 percent are with employers that do not offer such a scheme (e.g., very small companies or new companies in as-yet unorganized sectors, such as areas of information technology), and 7 percent are not eligible (e.g., those who hold small and temporary part-time jobs). The government is currently preparing policy to broaden participation in second-pillar schemes.

These schemes offer many different provisions: old age pension, widows' and widowers' pension, partners' pension (in case of enduring cohabitation), orphans' pension, invalidity pension, bachelors' pension (if the pensioner is single), temporary old age pension (from the retiring age until the statutory age of sixty-five), temporary survivors' pension (until the age of sixty-five of the survivor), and lump-sum disbursement. Of all employees covered by second-pillar provisions, nearly all are insured against the consequences of old age and premature death. About 75 percent also have insurance against loss of income due to invalidity. Many have the prospect of early retirement on a PAYGO basis, under the so-called VUT (*Vervroegde UitTreding*) system.

Old age, survivors', and invalidity pensions are usually compulsory. However, recent measures to reduce first-pillar benefits due for invalidity pensions respectively survivors' pensions have created a need for more flexibility within the second pillar. The result is that pension funds gradually offer more optional provisions, not only for survivors' and invalidity pensions, but also for repairing old age pension.

As for old age pensions, 70 percent of employees have an accrual rate of 1.75 percent per year, which gives defined benefits at a level of 70 percent after forty years of service, mostly related to some final pay system (average gross salary of some recent years, or no past service costs for career development after the age of fifty-five). Twelve percent of employees have accrual rates of less than 1.5 percent per year, mostly belonging to an average salary system. Defined contribution systems are rare in the Netherlands. Only about one-half of one percent of employees have such a provision, often in addition to a defined benefit scheme. Pensioners usually receive an adjustment for the cost of living.

As for early retirement, the PAYGO VUT systems were developed by

social partners (employers and employees) in the beginning of the 1980s to advance employment opportunities for the younger generations. A typical condition for early retirement was an uninterrupted span of employment lasting at least ten years before the moment of early retirement. Initially guaranteeing a replacement rate of at least 80 percent from the age of sixty onward (incidentally, even at an earlier age) and without any contribution of the employees, PAYGO VUT systems proved to be very popular. Obviously, they also became very expensive for the employer. In combination with an easily accessed state invalidity pension in the first pillar, the system of early retirement is an important reason for the low labor participation rates for elderly people in the Netherlands. Government therefore currently promotes a transformation into a capitalized flexible pension system. The friendly tax treatment of the PAYGO early retirement systems (contributions exempt and benefits taxed, often at a lower rate) will be phased out in the longer term.

Tax legislation is offering more possibilities for building up pensions than are generally used by pension funds. An accrual rate of 2 percent per working year on a final-pay basis (2.25 percent if based on average salaries), with a maximum of 100 percent of the final salary, is legally accepted. The retirement age in the pension scheme should be between sixty and seventy in order to be eligible for tax facilities. Retirement at an even earlier age is possible, but only with an adequate actuarial reduction of benefits.

In the board of pension funds, employers and employees are represented equally. Types of group life insurance, administered by insurance companies, are contracted by the employer. Pension funds themselves may reinsure (part of) their portfolios with insurance companies. This concerns about 45 percent of the schemes, for a total of less than 10 percent of employees, so reinsurance appears to be especially interesting for smaller pension funds.

Medical checks for entrance are forbidden. The level of contribution is different for each scheme, depending on the ambition of the scheme, the composition of membership, the different risks that are covered, the adjustment of pensions, the returns on investments, and the financial position of the fund. Usually both employer and employee pay part of the contribution for group provisions. In some schemes, only the employer pays. Individual provisions usually will be paid entirely by the employee.

The regulatory body for pension funds is the Ministry of Social Affairs, and for life insurance companies, the Ministry of Finance. The supervisory body for both pension funds and life insurance companies is the Insurance Supervisory Board. Schemes in the second pillar are fully funded under supervision of this board. Investments must be made according to the so-called "prudent person" principle. There are no quantitative restrictions on the portfolio investments of pension funds, except the limitation to a

maximum of 10 percent of assets invested in the sponsoring company. This restriction limits the employer's influence with the board of company pension funds. There is no currency-matching requirement. Investments by insurance companies are governed by the rules of the Third Life Directive of the European Union (EU).

The tax treatment of second-pillar schemes is similar to the EET system: Contributions are *e*xempt, returns on investments are *e*xempt, and benefits are *t*axed. Pension funds are exempt from corporation tax. Insurance companies pay corporation tax on profits. Tax facilities, as mentioned, cover the provision of old age, survivors', and disability pensions.

Particularly relevant from a labor market perspective, finally, is how second-pillar benefits are treated when workers are mobile between firms. Until the mid-1990s this treatment was cumbersome, in many cases causing a significant disincentive to labor mobility. Since 1994, however, every employee has had a legal right to take along the capital corresponding with his or her accrued rights to a new employer and pension fund. Transfer takes place according to rules of calculation set by the government. The transferred value of pension rights, accrued under the old scheme until the moment of mobility, is converted into actuarially equivalent pension rights under the new scheme. In this sense, all second-pillar benefits are individually portable within the Netherlands, even the vast majority that are based on defined benefits. Portability of pensions between EU member states (other than in the case of a temporary assignment abroad for the same employer) is generally difficult for everyone, not just for workers from the Netherlands. The difficulty is due to very large differences in pension and taxation regimes between member states. These differences should be placed prominently on the European policy agenda.

9.3.3 The Third Pillar

As mentioned before, this pillar can be taken to include all parts of old age income provisions. In the Netherlands, individual life insurance products (up to a limit) enjoy favorable tax treatment similar to that of collective pension schemes in the second pillar. Beyond that, saving, investment, and other vehicles are liable to normal income and wealth taxation.

9.4 Pension Reform

Thanks to a long postwar tradition, the Netherlands boast a relatively soundly financed pension system, offering a good starting position for coping with contemporaneous policy challenges. These challenges can be summarized with two questions: (1) Do old age income schemes offer sufficient room for individual choice? and (2) are these schemes efficient? The pre-

liminary challenge—safeguarding the financial solidity of old age income at the macro level—has been dealt with in section 9.2.

9.4.1 The Room for Individual Choice

Within the three-pillar system, equilibrium is sought between solidarity and individual choice. The first pillar offers every citizen a basic old-age income provision at minimum wage (and is thus income independent). This is solidarity at a national level. The PAYGO premium is compulsory and income dependent (within the first two brackets of income taxation). The second pillar offers employees a supplement, usually up to 70 percent of some definition of prepension gross income, collectively within the industry sector or the company. This is solidarity at the industry or company level. The premium to fund the second pillar is compulsory and paid by employers and employees (and, again is income dependent). The third pillar is voluntary and individual. In itself, this three-pillar system offers a suitable setup for balancing solidarity and individuality. In part, this is a question of economic efficiency. Boender et al. (2000) have shown that a collective pension for the commonly preferred pension component is economically efficient (i.e., it is more efficient in reducing risk than is individual saving). Finding the right equilibrium is also a political matter; it concerns the demarcation between the second and third pillar, and the scope for differentiation within the second pillar. The latter offers room for choice insofar as it is permitted by the collective (industry or company) wage agreement.

Since the 1990s there has been a growing interest in making room for individual choice. Factors behind this trend have been growing differentiation in household and labor participation patterns (more singles and working spouses), and growing labor mobility (changing employers, exit and reentry according to family circumstances, self-employment).

In principle there are three ways to offer more room for individual choice. The first is quite drastic: Allow individuals to opt out of collective arrangements and to invest their accrued capital individually. This road has been followed in the United Kingdom, leading to pension-misselling difficulties. Many persons have been ill advised and have taken risks with their basic pensions that subsequently turned sour. This road has not been considered in the Netherlands. Second, the room for individual choice can be enlarged by reducing the size of the second pillar in favor of the third pillar, with the total favorable tax treatment kept (see section 9.3) intact. Third, more room for choice can be offered to some extent within the second pillar itself. Of these three options, the latter two can be more gradual ways to accommodate shifting societal preferences.

However, there has been no policy of systematically reducing the size of the second pillar. Employers' and employees' organizations have not, in

the context of their collective wage agreements, adopted such an approach. This is remarkable, given that surveys indicate time and again that there is demand for more individual choice.[4] Individual modules have been introduced *within* the second pillar, however. This can be explained by tax considerations and by incentives for the parties (employers' and employees' organizations, pension funds) involved.

In the current tax system, a reduction of the second pillar does not automatically lead to more tax-favored room within the third pillar. This is an important factor. There has been discussion during recent years about introducing tax neutrality between the second and third pillars (e.g., Kremers and Flikweert 1998). This has led to a move in the direction of, but not quite reaching, such tax neutrality in the new tax regime. As of 2001, all accrued non–tax exempt savings will be taxed at a low rate of 1.2 percent (applying a uniform tax rate of 30 percent to an assumed return of 4 percent, independent of actual investment returns). This will mitigate the relevance of the tax exemption for old age provisions.

Incentives of employees' and employers' organizations may be relevant as well. The organizations are the "social partners" deciding on collective wage agreements, of which second-pillar schemes are a part; they also form the boards of directors of pension funds active within this pillar. I am unaware of any systematic empirical research into the degree to which premium payers' preferences are reflected in their decisions. The scope for opting out of collective industry schemes is very limited for participating employers, and nonexistent for employees. Can it be expected that these organizations actively reduce the scope of "their" second pillar, even if warranted by participants' preferences?

It is indicated in this respect that more room for choice *has* been created *within* second-pillar schemes. This concerns, for instance, prepension options. Collective pension funds have also begun to offer individual third-pillar products; the demarcation between collective, tax-favored, second-pillar schemes and the free-market segment of the third pillar is blurring. This has raised important but still unresolved issues of fair competition (taxation, use of personal data) and of privacy in using personal data from collective schemes for making individual offers (see Kremers, van Kempen, and de Groot 1999).

Finally, of specific labor market relevance is the question of whether the pension system is amenable to individual choice regarding pension age. As noted above, the system hitherto has, in effect, contributed to early retirement and to low labor participation of the aged. With an eye both toward financing the costs of an aging population and toward fully utilizing the available labor capacity, it will become increasingly important that

4. See, for example, the Vos and Alessi (1998) research report commissioned by the Ministry of Finance.

people remain economically active and productive as long as they wish to and they reasonably can. Here again, the system's incentives will need to be adjusted and more flexibility will be required. To this end, it may be of interest to consider moving from a final-pay pension anchor toward a pension level defined in such a way that demotion and part-time work at career end are not penalized. Some pension schemes, for instance, base the pension level on income at the age of fifty-five; other formulas are being discussed by various pension schemes.

9.4.2 The Efficiency of Old Age Income Provision

As regards efficiency, it is again the second pillar that is of greatest interest. The first pillar is organized simply as a general PAYGO scheme through the central government budget, and there is no debate about the costs of running it. The third pillar is open to full competitive pressures within the financial market sector.

For the greater part, the second pillar is run by pension funds. These are the responsibility of social partners (employers and employees, or their organizations); the government is not directly involved other than by defining the statutory context. Employers are obliged by law and general policy to participate in industry-wide funds whenever a branch of industry is defined; employees are obliged to participate in the employer's scheme. Given this situation, three elements are of specific relevance for the efficiency of pension funds: transparency and accountability, employers' scope for opting out, and financial supervision.

As an indication of the importance of second-pillar efficiency, it is illustrative to mention some recent computations by Ewijk et al. (2000). They found that a one percent lower pension fund return (keeping the general interest rate unchanged) would necessitate drastically higher pension contribution rates, and thus, through their tax deductibility, an additional raising of the annual government budget balance substantially greater than that already needed to cope with financing higher AOW and health care costs (see section 9.2).

Transparency and Accountability

Until a few years ago, pension funds were not obliged even to publish an annual report. Reporting requirements were introduced as of 1998, but the quality of pension fund reporting is still working toward a level customary for other financial institutions. Such transparency is important to enhance pressure on pension fund management and boards to deliver adequate performance. Several conditions need to be improved: No information is available on administrative costs; transparency requirements are less developed than those for life insurers; and employees are still not provided with comprehensive information about accrued rights and the costs at which benefits are being delivered.

As regards accountability, it is interesting to note that a great deal of attention is being paid in public debate to corporate governance in the Netherlands, stimulated in part by a more active role of pension funds as shareholders. The corporate governance of pension funds themselves, however, remains underdeveloped. In addition to transparency, the accountability of pension boards to their members with respect to key topics such as investment returns, administrative costs, and pension modalities offered will certainly be on the policy agenda in years to come.

Opting Out by Employers

Also as of 1998, some limited room has been created for companies to opt out of their industry pension funds when the funds' investment performance is significantly below the usual standards. The criteria for opting out are severe, and it remains to be seen to what extent opting out will be viable. Nevertheless, it is a positive effect that the investment performance of pension funds will now be measured and published on a comparable basis.[5]

Financial Supervision

Over the last few years several policy initiatives have been taken to align the quality of financial supervision of pension funds more fully with that of financial institutions in the market sector (especially that of life insurance companies). In one respect, the supervisory regime for pension funds in the Netherlands is quite amenable to efficient pension production: Modern ALM techniques are permitted and encouraged within a prudent-person approach, eschewing artificial quantitative restrictions (currency, financial instrument) on asset allocation. Dutch pension funds are free to invest their assets where and how they best see fit within a framework of modern prudential supervision (geared toward output in terms of risk versus return, rather than toward input in terms of asset restrictions)—and indeed they do, as witnessed by their worldwide investment presence. The share of pension assets invested abroad has risen quickly in recent years, from 25 percent in 1996 to 60 percent in 1999.[6] This undoubtedly reflects in part the introduction of the euro. Even outside the euro area, however, Dutch pension funds are quite active (in 1998, 25 percent of the total portfolio was invested outside the euro area; Verzekeringskamer 2000). In 1999, 57 percent of pension fund assets was invested in equity and real estate (William M. Mercer Company, April 2000). The portfolio structure per pension fund follows its chosen investment strategy, depending inter alia on the structure of liabilities (a fund with a younger population will

5. Systematic information on asset allocation and returns of Dutch pension funds is made available annually by the William M. Mercer Company; see, for example, *VB Contact* (1999 and previous years).

6. Source: CBS Webmagazine, 2 November 2000 [http://www.cbs.nl].

Table 9.4 Pension Fund Asset Allocation (1998)

	Percent of Total Assets
Under the prudent-person principle	
Ireland	76
United Kingdom	75
The Netherlands[a]	57
Belgium	53
Average	65
Under substantial quantitative investment restrictions	
Germany	22
Denmark	38
Average	30

Sources: Pragma Consulting, Brussels, and William M. Mercer Company.
[a]1999; data from William M. Mercer Company (April 2000).

Table 9.5 Pension Fund Asset Returns

	Real Total Return[a]
Under the prudent-person principle	
Ireland	13
United States	11
United Kingdom	10
Belgium	10
The Netherlands	10
Average	11
Under substantial quantitative investment restrictions	
Germany	7
Denmark	6
Switzerland	5
Average	6

Sources: European Commission (1999, quoting European Federation for Retirement Provision [EFRP], OECD, and Pragma Consulting, Brussels).
[a]Annual average (1984–98) in local currency, expressed in percent.

typically invest more in equity, carrying more risk in the short term but more return in the longer term). The largest pension funds tend to diversify relatively more into equities and worldwide investments, also outside the euro area. An indication of asset allocation by Dutch pension funds in an international perspective is given in table 9.4.

Available evidence indicates that the freedom to invest optimally is an important element of pension efficiency (table 9.5). Against this background, it is of immediate importance to the Netherlands that the upcoming EU Pensions Directive be based (as announced) on the prudent-person

principle.[7] The EC's proposal, published 11 October 2000 (see EC 2000) is consistent with this practice that has proved so successful in the Netherlands and elsewhere.

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7. See European Round Table of Industrialists (2000) for a succinct underpinning from the point of view of the European business sector.

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Comment A. Lans Bovenberg

This paper provides an excellent overview of the Dutch pension system. Its main message is that, compared to other European countries, the Netherlands is well placed to cope with aging. This is mainly because the Netherlands features one of the most funded pension systems in the world. Because I did not find much to disagree with in the paper, I will provide some additional information about the Dutch pension system. I will also argue that even a country like the Netherlands, which is quite well placed compared to other countries, still has much work to do in order to address the aging problem adequately.

Early Retirement

My first point of concern in the Netherlands is the low effective retirement age (see table 9C.1). Three major routes facilitate early retirement:

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Table 9C.1 Effective Retirement Age

	1950	1960	1970	1980	1990	1995
Males	66.4	66.1	63.8	61.4	59.3	58.8
Females	64.1	63.7	62.9	58.4	55.8	55.3

Source: CPB (1999).

Table 9C.2 Persons Aged 55–64 by Labor Market Status (1990)

	Men		Women	
Labor Market Status[a]	55–59	60–64	55–59	60–64
Employed	54.9	21.1	12.7	4.3
Disabled	31.3	37.7	10.5	10.8
Partly disabled/unemployed	1.8	1.0	0.4	0.3
Early retirement (VUT)	3.9	26.5	0.6	5.1
Social assistance	0.4	0.4	2.4	2.0
Unemployed	4.6	8.7	1.4	1.6

Source: CPB (1999).
[a]As a percentage of the population in that age category.

first, disability; second, occupational early retirement schemes; and third, unemployment benefits (see table 9C.2). Indeed, incentives to retire early are powerful. Empirical evidence reveals that the financial attractiveness of the three major routes to exit the labor force strongly affect the choice among these three alternatives.

Disability Benefits

The most popular public scheme for retiring early from the labor force is the disability program. At present, about a third of the males between the ages of fifty-five and sixty-four collect a disability benefit (see table 9C.2). As most of you probably know, the disability scheme is already extremely expensive in the Netherlands. Because the invalidity rates rise with age, aging makes the disability scheme even more expensive.

Early Retirement Benefits

Occupational early retirement schemes are the second most important route for early retirement. These so-called VUT (*Vervroegde Uittreding,* or early retirement) schemes are negotiated in collective bargaining among the social partners. At present, about a quarter of the men aged sixty to sixty-five collect early retirement benefits. There are two major differences with the occupational pensions that are provided after the statutory retirement age of sixty-five. First, in contrast to regular occupational pension benefits, early retirement benefits are financed on a pay-as-you-go

(PAYGO) basis. Second, one must completely withdraw from the labor market in order to be eligible for the benefits.

These schemes were introduced about twenty years ago, when unemployment was rising rapidly. At the present time, in contrast, the labor market is increasingly tight. In a number of collective labor agreements, early retirement provisions for the elderly are gradually being phased out and replaced by individual saving schemes for younger workers that are more actuarially fair. Hence, in the future, early retirement can be expected to be financed increasingly through funded rather than PAYGO schemes.

Unemployment Benefits

The unemployment scheme recently has become a more popular route for early retirement—due in part to recent measures making the disability scheme less attractive. Unemployment benefits are especially attractive for older people, for three reasons: First, the insurance character of unemployment benefits implies that elderly workers typically have accumulated substantial insurance rights. Indeed, most people aged sixty and older can expect to collect unemployment benefits equal to 70 percent of their previous earnings up to age sixty-five (in before-tax terms).

Second, another feature facilitating early retirement through the unemployment scheme is that unemployed workers older than 57.5 years need not apply for work in order to be eligible for unemployment benefits. Indeed, the number of people collecting unemployment benefits is more than twice as high as the number of people who are officially unemployed (i.e., are actively looking for work). This indicates that the unemployment scheme is in fact used as a route for early retirement.

Third, when laying off elderly workers, employers often provide supplementary severance payments to top-off the unemployment benefits. In this way, by providing relatively small supplementary benefits, employers can ensure that older, laid-off workers maintain their standards of living in early retirement. Because the public sector pays for most of the benefits, the employer does not internalize the full costs of early retirement.

One of the main challenges facing Dutch policy makers is to increase labor force participation—especially of elderly workers. The labor force participation rates of younger workers have increased during the past two decades, due mainly to a higher labor force participation of women. This can, in fact, be viewed as the other side of the coin of lower fertility. The participation rate of women between the ages of twenty and sixty-five, which has already risen rapidly during the past two decades, is expected to continue to rise further—from about 50 percent now to about 70 percent in 2020. Indeed, whereas two-earner households at present are about as common as households with one breadwinner and one nonparticipating partner, the two-earner family will become the norm in the next century.

In order to reduce the burden on the middle aged, who will be heavily burdened both by raising children and by caring for the older generations in an aging society, it will become extremely important to raise the labor force participation of elderly workers. Hence, the incentives to retire early should be phased out.

Public Pension System

I now turn to the three pillars of the Dutch pension system, beginning with the first. The pay-as-you-go public pension scheme (Algemene Ouderdoms Wet, or AOW) is quite vulnerable to aging, a problem that can be addressed by reducing benefits or by raising taxes or premiums.

Benefits

On the benefit side, the indexation mechanism is crucial. The flat public pension benefit is indexed to the minimum wage, which is in turn linked to contractual wages. Despite this effective indexation to contractual wages, the value of the public pension has declined compared to the average standard of living during the last two decades. There are two main reasons for this. First, the minimum wage was frozen during most of the 1980s in order to cut public spending. Second, contractual wages typically lag behind actual wages because of promotions and other supplementary earnings that are not included in collective wage contracts. Thus, the public pension does not grow in line with the average standard of living. This is a major reason that the costs of the public pensions (in terms of gross domestic product [GDP]) do not double between now and 2040, despite the doubling of the dependency rate during this period.

Most private occupational schemes (i.e., the second pillar) filled the gap left by the public scheme to ensure that the sum of occupational and public pension benefits stayed in line with the average standard of living. By reducing the generosity of the public scheme, the government has in fact privatized part of pension provision.

Contributions

Kremer's paper mentions two ways in which the government strengthens the financing of the public pension: first, by financing a larger part of the public pension out of general tax revenues, and second, by building up a temporary fund that will contain close to 20 percent of GDP by 2030.

It is not clear, however, how effective these measures are. Financing a larger part out of general tax revenues implies that the elderly contribute more to the financing of public pensions because the wealthier elderly, who are exempted from paying public pension premiums on their supplementary incomes, *do* pay taxes on these incomes. By bringing the elderly within the tax net, the government in effect broadens the contribution

base. However, the commitment of the government to do so is not very credible because the elderly are rather powerful politically. Indeed, despite earlier intentions, both the previous and the current government have increased the public pension premium in order to enhance the purchasing power of the elderly at the expense of the young.

In the same way, the prefunding of public pension benefits is not meaningful if it is not backed up by fiscal surpluses. Whether the fund for public pensions has any economic meaning will thus depend on future fiscal policy. Because the government has not yet committed itself to such a fiscal policy, the fund is largely symbolic at this stage. Moreover, even if the fund is filled by running fiscal surpluses, the fund does not seem to be large enough. Generational accounting exercises suggest that a sustainable fiscal policy requires fiscal surpluses larger than the inflows into the public pension fund—even if labor force participation rises substantially during the next two decades. In particular, these exercises assume that the trend toward higher labor force participation of women will continue, while the participation of males older than fifty-five will rise (in part due to lower invalidity rates; see, e.g., Bovenberg and ter Rele 2000 and CPB Netherlands Bureau for Economic Policy Analysis (CPB; 2000).

Occupational Pensions

Kremer's paper states that occupational pensions are fully funded. However, the defined benefit (DB) nature of these pensions, which are thus linked to wages rather than to rates of return on the capital market, imply that they also incorporate a PAYGO component on account of intergenerational risk sharing. Indeed, in order to be able to pay wage-linked benefits, the occupational schemes rely not only on the accumulation of financial assets but also on an implicit contract among the firm, its workers, and retirees. If returns are low and wage increases are substantial, the firm and its younger workers transfer resources to the retirees and older generations. If returns are high, in contrast, the transfer of resources goes the other way around.

Intergenerational risk sharing yields important advantages. The associated long-term horizon allows pension funds to take advantage of the risk premium on equity (the so-called equity premium). Indeed, Dutch pension funds are increasingly investing in equity. This facilitates the investment of pension saving in high-yield projects in the corporate sector, improves corporate governance, enhances capital mobility within the corporate sector, allows a higher expected return over a long horizon, and makes the return on pension saving less sensitive to unexpected inflation.

The price of intergenerational risk sharing is the compulsory nature of Dutch occupation schemes. This compulsion, however, is broadly supported by the Dutch population. Only about a quarter of the participants

of these funds would prefer to have the discretion to choose a pension fund, which would undermine intergenerational risk sharing.

Challenges Facing Occupational Pensions

Several developments are putting severe pressures on the role of the second pillar in ensuring intergenerational risk sharing. First, aging makes the premiums levied by funded DB systems more sensitive to changes in the rate of return because aging, together with the maturing of these plans, reduces the premium base compared to the insured pension rights. Second, aging may depress the rate of return and raise wage growth, as it makes labor more scarce compared to capital.

Third, an increasingly competitive environment and higher labor mobility associated with a more flexible labor market are reducing the room for intergenerational risk sharing. Indeed, the DB schemes (which link pension benefits to wages rather than to the discounted value of individual premiums) back up the benefit promise not only by financial assets, but also by the market power of the firm and the commitment of future workers to the implicit contract between generations of workers. In particular, a firm can abide by the pension contract only if it earns enough rents to insure the elderly against low returns without being pushed out of the market by young firms that have no retired workers to care for. Exit barriers for young workers ensure that DB schemes can transfer resources away from younger workers to retirees and older workers. If young workers become mobile across firms, they cannot be forced to abide by the implicit contract with the retired and older workers in their new firms; if a firm attempted to tax its younger workers to transfer resources to its retirees, these workers would move to young firms without retirees and older workers. As competition intensifies in product, capital, and labor markets, occupational schemes are thus likely to acquire more features of defined contribution (DC) schemes. In particular, retirees will bear more risks. An important mechanism through which retirees absorb risk is through the conditional indexation of pension benefits. Whereas most retirees benefit from indexation of occupational benefits (to prices or even contractual wages), this indexation is not a regulatory requirement, but rather conditional on the financial health of a pension fund.

Shift to the Third Pillar

The paper correctly states that most occupation schemes aspire to a benefit level of 70 percent of the gross final wage (including the public benefit). However, even apart from the uncertainty about the indexation mechanism, many workers do not achieve the 70 percent final-wage aspiration level because of incomplete careers. Furthermore, even with full careers, many two-earner families and single-person households collect a collective pension of less than 70 percent of the final wage (in before-tax

terms), because the occupational benefit typically assumes a public pension for a two-person family with a single earner of 100 percent of the minimum wage. Two-earner families and singles, however, receive public pensions of only 50 percent and 70 percent, respectively, of the minimum wage. Because two-earner families are becoming increasingly important, the ambition levels of collective pensions are falling. This increases the room for the third pillar.

Personal Pensions

The third pillar can be tailored to individual tastes with regard to the insurance level, but lacks intergenerational risk sharing. Interestingly enough, the paper does not discuss any reform measures for the third pillar. It states that "the third pillar is open to full competitive pressures within the financial market sector." Even so, the third pillar is ripe for reform. In particular, the market for personal pensions is neither very competitive nor transparent. Indeed, some observers maintain that insurance companies are able to capture a large part of the tax benefits of personal pensions. Intermediaries are paid by the insurance companies, and administrative costs are quite high.

Not only the second pillar, but also the third pillar, benefits from tax privileges. These tax benefits are in part due to the fact that the premium for public pensions is paid only by those younger than sixty-five years of age. Accordingly, individuals can reduce their tax liability by shifting their taxable income through pension saving toward retirement, when they do not pay the premium for the public pension.

I very much doubt whether tax benefits that are limited to pension saving are desirable in view of the need to raise labor force participation of the elderly—one of the main challenges facing the Dutch economy in years to come. Indeed, by stimulating pension saving, current tax benefits encourage early retirement. In my view, individuals should be allowed to take out some funds from tax-favored accounts before retirement age—to invest, for example, in their own human capital or that of their children (by caring for the children), or to start a business. Hence, individuals could save in the form of human capital and entrepreneurship. In this way, by investing early in life in human capital, individuals may be able to work longer.

To reduce reliance on public unemployment schemes that result in major disincentives to work, individuals could be allowed to draw on the tax-favored account during times of unemployment as well—in part, to invest in training to improve their positions on the labor market. In this way, these tax-favored accounts would facilitate a less rigid allocation of learning, working, caregiving, and enjoying leisure throughout the life cycle. Indeed, these accounts could be viewed as an instrument to insure against several human-capital risks (due not only to old age but also to unemploy-

ment and obsolescence of human capital during the working life). By increasing the flexibility in using tax-favored saving, the government may enhance human capital formation and stimulate entrepreneurship. Indeed, the main challenge facing the Dutch economy is not so much to increase financial saving, but rather to stimulate entrepreneurship and the accumulation of human capital.

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Discussion Summary

Jeroen Kremers responded to the discussant that as far as early retirement as an exit from the active workforce is concerned, it is also relevant to add the element of demotion. The Netherlands are currently thinking of adjusting the final pay-related pension formula so that people are not penalized by a lower subsequent pension benefit if they stay in the labor force at a lower wage or as part-time workers. He agreed with the discussant's comments on the AOW budget fund and on transparency within the third pillar of the Dutch pension system. He reported that some aspects of intertemporal flexibility as mentioned by the discussant were included in the original tax reform package. However, they fell out in the last stage purely for budgetary reasons, and may return to the policy agenda.

Martin Feldstein inquired about the portability of pension claims if workers move from one sector to another. *Jeroen Kremers* reported that it is possible for a worker who moves between companies to take the accrued benefits along.

Eytan Sheshinski mentioned that there are three means for early retirement in the Netherlands: disability benefits, early retirement, or unemployment benefits. He asked about the benefit levels compared to each other and about the incentive effects of the three programs. *A. Lans Bovenberg* answered that the early retirement scheme is the most desirable of all three schemes, because there is no stigma attached to it, and it is used mainly by high-skilled workers. Low-skilled workers rely more on the disability scheme and the unemployment scheme. Of these two, the disability scheme is a bit more attractive because benefits are paid indefinitely, whereas the unemployment scheme only pays temporary benefits. Bovenberg empha-

sized that the major challenge for the Netherlands as well as for other European countries is to improve human capital of the low-skilled individuals to keep them employed without reducing their standard of living too greatly.

David A. Wise asked the discussant what he meant by his statement that tax benefits encourage early retirement. Wise pointed out that the employer-provided pensions give enormous incentives for early retirement, and he wondered how these incentives are related to each other. *A. Lans Bovenberg* responded that the Netherlands have large tax incentives to shift income within the life cycle from a younger age to an older age, so that the old have a great deal of accumulated wealth and may use that wealth for early retirement. To prevent early retirement, it might be wise to keep these tax benefits and allow individuals to use the benefits for education. According to Bovenberg, one of the main reasons for early retirement is that the workers do not have much human capital once they reach the age of around fifty-five. Wise also wanted to know more about the statement of the discussant that pensions are moving toward a defined contribution system.

Horst Siebert wondered why the comanagement of the second pillar by the social partners seems to work in the Netherlands, whereas in the case of France the point was made that the comanagement leads to high inflexibilities. *Jeroen Kremers* responded by mentioning that inflexibility of a comanaged pension system also means stability. Comparing the Netherlands with France, *Martin Feldstein* remarked that the relations between social partners are much less confrontational in the Netherlands than in France. *A. Lans Bovenberg* added that the attitude between social partners was more confrontational in the 1980s than it is now. Meanwhile, some good incentives for social partners to behave have been established. For example, the link between social benefits and the wage level is dependent on the ratio between the number of people on social insurance and the number of people in work.

Reijo Vanne asked how the increasing life expectancy is managed in the funded second pillar of the Dutch pension system.

Laurence J. Kotlikoff mentioned the high reliance of the Dutch system on the second pillar, the employer-defined-benefit (DB) plans. He wondered about the effects of administrative costs or insurance loads charged in these plans. He asked whether the Netherlands might consider the idea of opening up an account that is invested in a global index fund as an alternative to the defined benefit plan of the employers. *Jeroen Kremers* agreed that pension funds may have large administrative costs. For that reason, he reported, the Netherlands have begun policies to increase transparency and to give employers the possibility of leaving the pension fund. Although the conditions for opting out are so rigid that this may never happen, the performance of the different pension funds is now computed

and published, and the issue has raised awareness in the public. Apart from that, standardization in pension funds may also have the effect of reducing costs. Nevertheless, in the near future there will probably be a gradual transition toward more room for the third pillar and less room for the second pillar.

Laurence J. Kotlikoff expressed his concern that the calculations of the future pension benefits by the employers may not necessarily be honest and reasonable. It may also be difficult for workers to compare their benefits with the benefits of workers in other firms. He referred to work by Kotlikoff and Wise that has shown that DB plans subsidize early retirement in their actuarial reduction factors. *Jeroen Kremers* responded that the employers also have a stake in the performance of the pension funds, because the pension premium is paid jointly by the employer and the employee. However, Kremers shared the skepticism of Kotlikoff concerning comparability of the different pension funds for the employees, but also mentioned that an increasing number of funds (including the largest, the civil servants' fund, or ABP) have begun to provide employees with easily understandable statements of accrued benefits.

Ignazio Visco asked about the involvement of the employees in the opting-out possibility that is given for the case where pension funds have returns below the average.

Assar Lindbeck noted that it was helpful for a country such as Ireland, New Zealand, Sweden, or Finland to have a serious enough crisis. He conjectured that the crisis in countries like France and Germany may not yet be severe enough.