



Reforming Social Insurance in the Netherlands

A. LANS BOVENBERG*
Tilburg University, P.O. Box 90153, 5000 LE Tilburg, The Netherlands

A.L.Bovenberg@kub.nl

Abstract

This paper discusses recent reforms of social insurance in the Netherlands. It describes how a serious economic crisis in the beginning of the 1980s set the stage for the subsequent reform process. The most fundamental reforms were introduced in the areas of sickness insurance, which was privatized, and disability insurance, which now involves experience rating. After exploring various challenges affecting the future of social protection, the paper discusses various remaining policy options.

Keywords: social insurance, the Netherlands, privatization, competition, sickness insurance, disability insurance

JEL Code: E6, H5, I3

1. Introduction

Compared to other European countries, the Netherlands started to reform its system of social protection and insurance at a relatively early stage, namely in the beginning of the eighties when a number of adverse macroeconomic shocks had set in motion a vicious circle of an increasing number of benefit recipients and an erosion of employment. This paper describes the Dutch reforms, from which other countries may draw some lessons.

The reforms in social insurance were part of a broader reform process which included reforms in the labor market, wage setting, and fiscal policy.¹ Wage moderation was facilitated by the so-called Wassenaar agreement between employers and unions in 1982. At the same time, the relationship between the government and social partners changed from bargaining over mutual concessions, such as trading tax cuts for wage moderation, to the development of common policy orientations, such as a strong employment performance. In this way, the responsibilities of government and the social partners became better delineated. Subsequent to the Wassenaar agreement, social partners concluded a number of successful bilateral agreements with quite general qualitative recommendations. These agreements contrasted with the failed attempts in the seventies to arrive at detailed ‘social accords.’ While the central organizations representing employers and employees issued broad guidelines and agreements, these guidelines were

* The author thanks two anonymous referees, Peter Birch Sørensen, Herman Vossers and several of his former colleagues at CPB Netherlands Bureau for Economic Policy Analysis for helpful comments on previous drafts of this paper. This paper draws heavily on Chapter 6 of CPB Netherlands Bureau for Economic Policy Analysis, *Challenging Neighbours, Rethinking German and Dutch Economic Institutions*, Springer-Verlag (Berlin).

implemented on a more decentralized, sectoral level. Actual wage negotiations, for example, were increasingly occurring at a sectoral level. At the same time, the labor market became more flexible while the growth of part-time-employment facilitated the access of women to the labor market. The public spending to GDP ratio fell from 67% in 1983 to close to 50% in 1998. Initially, the government used spending cuts to reduce the fiscal deficit. When the deficit was reduced substantially in the beginning of the nineties, the government could support wage moderation through substantial cuts in the tax burden.

This paper discussing the reforms in social insurance is organized as follows. Section 2 describes the features of social protection in the Netherlands before the reform process started in the early eighties. Section 3 discusses how the design of the Dutch system resulted in its failure. This sets the stage for the reform process, which is discussed in Section 4. After Section 5 investigates various challenges affecting the future of social protection, Section 6 concludes by discussing various policy options.

2. A Primer on Social Security in the Netherlands in the Beginning of the Eighties

This section provides a brief description of the Dutch social security system before the reform process took off in the beginning of the eighties. In social insurance, *employee* insurance and *national* insurance could be distinguished. *Employee* insurance applied only to working people and covered employment risks, mainly unemployment, disability, and sickness. Benefits depended on previously earned wages. In collective labor agreements, employers and employees (the so-called social partners) typically supplemented the benefits from statutory employee insurance with extra-statutory supplemental provisions. All residents were entitled to *national* social insurance, which involved family allowances, disability benefits for the handicapped, allowances for special health costs, and a basic pension. In contrast to benefits from employee insurance, benefits from national social insurance were minimum benefits and were thus not related to previously earned wages. As the safety net of the welfare state, *social assistance* (welfare) is provided to those who do not collect enough income or insurance benefits to attain a minimum standard of living. Social assistance is means tested (taking into account income and wealth of the partner).

This paper focuses on employee (i.e. unemployment, disability, and sickness) insurance and social assistance because the reform process in the Netherlands during the last fifteen years focussed on these areas of the welfare state. Indeed, these forms of insurance suffer most from moral hazard problems.² Moral hazard affects the incentives of a number of actors involved in social insurance, including employers, program administrators, industry associations, workers and benefit recipients. Social partners played a major role in the administration and control of employee insurance. A number of Industry Associations, which were governed by the organizations of employers and employees, administered these insurance/schemes. Depending on the industry in which it operated, each firm was legally required to become a member of a particular Industry Association, which thus enjoyed a monopoly position. Social partners also held a joint majority in the Social Insurance Council, which supervised the Industry Associations. Hence, they dominated both the

Table 1. Unemployment benefit entitlements^a in various countries.

	1980	1995
Belgium	45	42
France	30	43
Germany	40	38
Netherlands	48	46
United Kingdom	23	18
United States	13	12

^a The average of the gross unemployment benefit replacement rates for two earning levels, three family situations and three durations of unemployment. For further details, see OECD (1994, chapter 8).
Source: OECD (1994) and Martin (1996).

administration and supervision of employee insurance. Independent supervision was thus lacking in the corporatist structure of social insurance.

Unemployment Insurance and Social Assistance

The benefits for unemployment insurance were quite high in the Netherlands (see Table 1). The largest part of the premium for unemployment insurance was uniform across Industry Associations. Only a small part (which covered the first eight weeks of unemployment) was specific to each individual Industry Association. Earnings-related unemployment benefits were of limited duration.

After earnings-related benefits ran out, the unemployed could draw on social assistance, which was means tested and provided a flat minimum benefit on the subsistence level, which did not depend on previous earnings. The government did not employ financial incentives to ensure that the administrators of welfare behaved in the interests of the central government. Social assistance was entirely financed by the central government, while local communities received additional benefits based on the number of welfare recipients. Accordingly, municipalities lacked financial incentives to limit the number of welfare recipients. To compensate for this, the central government laid down various administrative rules in great detail.

Disability Insurance

Disability insurance benefits consisted of two tiers. National insurance granted minimum benefits to all residents. Employee insurance supplemented these minimum benefits so that the combined gross disability benefit replaced 80% of previous gross earnings in case of full disability. In after-tax terms, replacement rates were even higher (see Table 2). Whereas disability insurance featured the same replacement rate as unemployment insurance, disability benefits were generally perceived to be more attractive than unemployment benefits.

Table 2. Features of social insurance in the Netherlands, 1983 and 1995.

	1983	1995
<i>Sickness</i>		
replacement rate	100	100
sickness rate ^a	7.7	5.5
<i>Disability</i>		
replacement rate ^b	84	75
requests ^c	2.1	1.8
admissions ^d	94.5	88.4
invalidity rate ^e	13.3	10.1
<i>Unemployment</i>		
replacement rate ^f	81–89	66–75

Source: CPB (1997)

^a Total benefit years as a percentage of compulsory insured.

^b The after-tax replacement rate refers to a married couple with two children and one income-earner who starts his career at twenty years of age with a salary of 65% of the Average Production Worker (APW). His income increases linearly up to 130% of the APW at age 50. However, at age 45 he loses his work capacity (fully). Consequently, his last earned wage amounts to 119% of the APW.

^c Number of requests for work incapacity benefits as a percentage of the insured workforce (excluding civil servants).

^d Allocated benefits for job incapacity as a percentage of requests (excluding and civil servants).

^e Disability benefit recipients as a percentage of the number of insured (excluding civil servants).

^f The after-tax replacement rate refers to a married couple with two children, one earner 45 years old at the beginning of unemployment and an employment record of 25 years. The higher figure depicts the initial replacement rate, the lower figure the case of long-term unemployment.

In particular, in contrast to unemployment benefits, disability benefits were of unlimited duration (until retirement at the age of 65), did not impose a work requirement, and were less stigmatizing.

Several features made the Dutch system of disability insurance unique. As a first distinct feature, the Dutch disability insurance system did not distinguish between occupational and social risks; only the degree of disablement was relevant and not its origin. In other OECD countries, in contrast, disability programs typically provide less generous benefits than unemployment insurance if the impairment is not job related.

Another unique aspect of the Dutch disability program was that it distinguished seven disability categories. These categories ranged from less than 15 percent to 80–100 percent disabled. Moreover, in determining disability, the labor-market situation could be taken into account. In particular, those who were only partly disabled were entitled to full disability benefits if the labor-market situation did not allow them to find a job. As a result of this rule, many who passed the threshold of a 15 percent reduction in earnings

capacity collected full benefits. Indeed, the disability program contained a large component of hidden unemployment.³ Moreover, benefits were granted if an insured person was not able to find a job at the same skill and experience level as the job held before the loss of earning capacity occurred. Related to this, compared to the situation in other countries, the claim-assessment procedure in the Netherlands was less medically oriented; the insurance doctor did not play a prominent role in the examination process. Furthermore, prevention and rehabilitation was not stressed. Indeed, the government did not apply quotas and wage subsidies for employing the disabled.

The distinct corporatist structure of the administration and supervision was another distinct feature of the Dutch disability program. Whereas the law specified benefit level and duration, employers and employees dominated the administration and supervision of disability insurance though their strong position in the Industry Associations (see above). Although the Industry Associations administered disability benefits and could develop their own rehabilitation policies and issue their own guidelines for awarding benefits, premiums for both tiers of disability insurance were uniform across the labor force. Hence, the Industry Associations did not face financial incentives to cut the inflow into disability (since the costs of disability could be shifted to others through a higher nation-wide premium). Financial responsibility, therefore, did not match accountability.

Disability benefits were thus not only relatively generous but also loosely administrated. The government employed neither independent supervision nor financial incentives to ensure that the administrators behaved in the interests of the system as a whole. Accordingly, none of the parties involved in the system (i.e. employees, employers, and administrators) were directly confronted with the costs of granting disability benefits. Indeed, disability insurance gave employers a flexible and socially attractive way to reduce their workforces and get rid of less productive workers without raising the official unemployment rate. In other words, employers could use disability insurance as an instrument of personnel management. In most other countries,⁴ moral hazard was less of a problem in disability insurance because the replacement rate for disability was lower than that for unemployment, disability was determined more on the basis of objective medical criteria and less on the basis of the labor-market situation, and administrators faced more incentives to contain the number and size of disability benefits.

Sickness Benefits

Sickness benefits were paid to workers who could not perform their jobs because of injury or illness. As in the disability program, the cause of the injury or illness was not relevant. The statutory replacement rate was equal to that for disability benefits, namely 80% of before-tax earnings. Collective labor agreements, however, typically supplemented sick pay to 100% of pay, so that Dutch employees were protected from any income loss during sickness (see Table 2). Sickness benefits lasted 12 months, after which the disability program took over. Premiums were differentiated by industry along the lines of the Industry Associations. Monitoring was rather ineffective in fighting moral hazard; sickness absenteeism in the Netherlands was assessed only on the basis of random checks by so-called 'lay controllers' (see Prins, 1990).

3. The Mechanisms of Failure

The description of the social insurance systems in the previous section reveals that the Netherlands not only provided high benefits but also did not seriously monitor the eligibility of claimants for benefits. At the same time, the governance structure for administering benefits was inadequate. In particular, the system lacked regulation and independent supervision of the benefit administration. Moreover, it did not employ financial incentives in encouraging decentralized administrators to reduce the inflow in as well as to increase the outflow from the social insurance system. Hence, the Dutch system did not adequately combat moral hazard of benefit recipients, employers, and the benefit administration. This set the stage for the failure of the system. This failure became apparent only gradually in the late seventies and the beginning of the eighties, when the Dutch economy was hit by adverse macroeconomic shocks.

Destabilizing the Welfare State

By protecting the aggregate demand in an economic downturn, the welfare state was initially perceived as an important automatic stabilizer. The macroeconomic experiences in the seventies and eighties of several European countries (and the Netherlands in particular) showed, however, that the welfare state is not shock-proof and may actually contribute to unemployment persistence. In particular, an adverse macroeconomic shock may set in motion a vicious circle between the costs of the welfare state and an erosion of employment—the economic base undergirding the welfare state. In this connection, the OECD job study (OECD 1994) stresses that extensive welfare states can make economies less flexible in absorbing macroeconomic shocks. Also Ljungqvist and Sargent (1998) focus on the role of social benefits in slowing down the adjustment of OECD economies to structural change, thereby contributing to high and persistent unemployment.

The macroeconomic shock that hit the Netherlands at the end of the seventies was the second oil price shock. In the aftermath of the first oil price shock, successive Dutch governments had pursued expansionary policies aimed at maintaining aggregate demand. These policies involved employment creation in the public sector. The associated rapid expansion of the public sector was financed by higher revenues from natural gas, higher taxes and premiums, and a widening fiscal deficit. When the second oil price shock hit, Dutch policymakers had lost all room for expansionary policies, as the fiscal deficit was approaching 10% of GDP. At the same time, the high energy-intensity of production, the low share of Dutch exporters in oil-producing country's markets, the dependency of the open Dutch economy on declining world trade, and the increased competition from less developed countries in markets for low-technology products had particularly detrimental effects on the Dutch economy (see OECD, 1987).

The vicious circle that was set in motion by the oil price shock ran as follows: a lower level of economic activity raised inactivity, thereby boosting public spending. To finance the additional spending, tax rates and contribution rates for social insurance⁵ were raised. The higher tax burden, in turn, depressed labor demand by increasing labor costs. Higher labor costs reduced labor demand through three channels. First, it eroded the profitability

of businesses, thereby eliminating the room and the incentives for investment. Second, it decreased the labor intensity of production. Third, it worsened the competitive position in world markets, thereby depressing net export demand. This last channel is particularly important in a small open economy like the Netherlands. The higher tax burden not only reduced labor demand, but also discouraged labor supply by reducing after-tax wages. The associated lower level of employment boosted public spending and tax rates further.⁶

This vicious circle could get started because generous and open-ended benefits in combination with a lax and inefficient benefit administration failed to encourage benefit recipients to return to work and allowed employers to dump less productive workers in social security schemes (especially the disability scheme in the Netherlands). This process was strengthened further because the increasing number of claimants created a dependency culture by eroding the norms and values that restrained moral hazard of beneficiaries, employees, employers, and administrators.⁷ With the welfare state thus acting as a 'social hammock', a temporary adverse macroeconomic shock threatened the long-run viability of the welfare state, thereby forcing the government to renege on its previous commitments. In this way, the welfare state may have become destabilizing rather than stabilizing.

The Welfare State and Social Exclusion

The welfare state appeared to be counterproductive also in promoting social cohesion by reducing the access of low-productivity workers to jobs. High taxes and premiums that raised labor costs cut off demand for low productivity workers. At the same time, replacement rates were relatively high at the lower income levels,⁸ thereby increasing reservation wages of less productive workers, depressing their search intensity, and compressing the wage structure. Hence, the loss of employment as a result of the adverse macroeconomic shocks was concentrated among low-skilled workers. The prolonged periods of inactivity tended to erode the human capital and working habits of these individuals. This made the loss of employment for these groups especially difficult to reverse (see Ljunqvist and Sargent, 1998). The reduced access to work for the low skilled thus contributed to social exclusion of these vulnerable groups. This process of increasing the population of outsiders was strengthened further because administrators faced only weak incentives to get benefit recipients back to work.

The Hold-Up Problem

Another channel through which social insurance was counterproductive in generating equity and sharing risks involved the 'hold-up' problem. This problem occurs if investments are only productive in a relationship with another party. After the investments have been sunk, the non-investing party has a strong bargaining position to expropriate the quasi rents from these investments. Anticipating that he will be 'held up', the investor does not invest. In this way, socially valuable investments do not happen; they are 'held up'. By giving labor too strong an ex-post negotiating position to extract quasi-rents from entrepreneurs, social security worsened the hold-up problem for investments in physical capital. The lack of investment gave rise to unemployment of labor. In general equilibrium, the bargaining po-

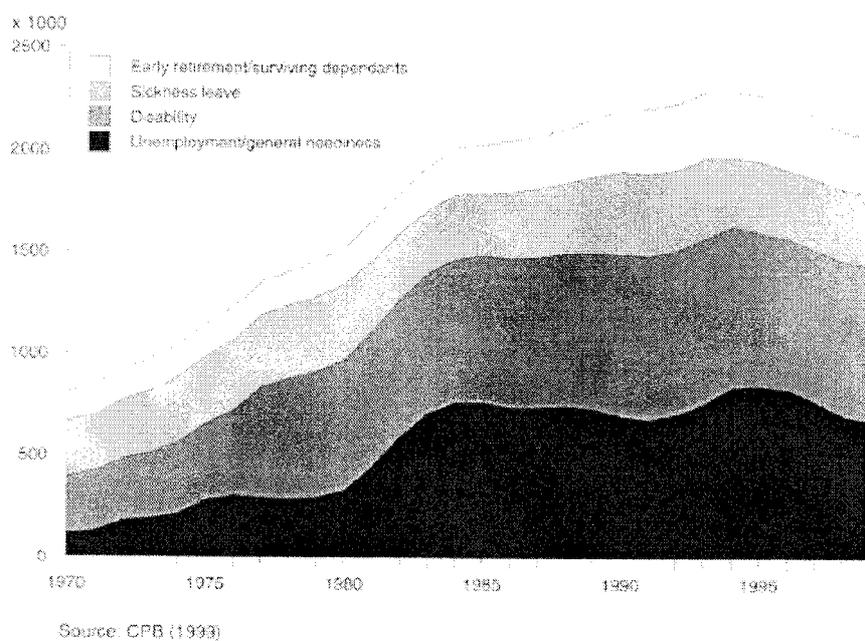


Figure 1. Number of benefit recipients below by years of age in the Netherlands 1970–1999.

sition of workers was thus weakened through unemployment (for a formal treatment of this process, see Caballero and Hammour, 1996). The rationing mechanism of unemployment strengthened the insider-outsider distinction between various workers, thereby increasing the risks facing a given individual.

Performance

The vicious circle described above contributed to the growth of Dutch spending on social insurance. The rapid increase in Dutch social spending during the seventies can be attributed primarily to disability insurance. Especially during the second half of the seventies, the number of disability claimants surged. The number of people claiming unemployment benefits rose particularly rapidly between 1980 and 1984 (see Figure 1 and Table 3).

In the 1980s, as the extension of social security had led to a situation in which every working person had to support almost one benefit recipient, consensus emerged that reform of the social security system was called for. The system had become counterproductive in achieving the objectives for which it was set up. Rather than stabilizing shocks and protecting solidarity, it had resulted in the persistence of employment losses, the reduced access of vulnerable groups to the labor market, and a vicious circle eroding the economic base for providing generous benefits.

Table 3. Recipients of social protection benefits ('inactive' persons) and employed persons ('active' persons) in the Netherlands, 1970-1998.

	1970	1975	1980	1985	1990	1995	1996	1997	1998 ^a
Social security beneficiaries (in thousands)	2030	2520	3059	3733	3991	4183	4167	4134	4073
Employment (in thousands)	4592	4500	4624	4486	4858	5074	5198	5328	5474
Benefits to employment ratio (in %)	44.2	56.0	66.2	83.2	82.1	82.4	80.2	77.6	74.4
Of which:									
Old age and survivor benefits	28.9	32.7	35.4	39.7	40.3	41	40.5	40	39.3
Sickness	3.2	3.5	3.6	3.7	3.8	3.7	3.6	3.4	2.7
Disability	9.0	12.8	19.5	21.1	23.4	20.9	19.7	19.6	19.4
Unemployment	1.6	4.4	5.2	14.7	11.1	13.7	13.2	11.8	10.3
Other social assistance	1.5	2.6	2.4	4.0	3.6	3.2	3.2	2.9	2.6

^a Estimates.

Source: CPB (1998).

4. Reforms in the Netherlands

4.1. General Reform Strategy

In welfare state reform, two broad strategies can be distinguished. The first strategy aims at preserving as much as possible the European legacy of solidarity by fighting moral hazard through a more efficient administration of social benefits. The second strategy, which can be identified with the Anglo-Saxon approach, focuses on reducing the level of public insurance and widening the income gap between the working and nonworking.

The reform of the Dutch social insurance system, which was initiated in the mid eighties, combines these two strategies: It combats moral hazard of both the insured and the benefit administration. Indeed, the two strategies are complementary. In particular, reducing the level of benefits becomes more effective in decreasing claims on the social security system if the benefit administration is efficient (see also Coe and Snower, 1997). Rather than providing passive income support, the social security system was reformed so as to encourage participation in the labor market. This strategy was executed in different phases.

Cutting Benefits

In the mid eighties, reforms primarily attempted to fight moral hazard of workers and benefit recipients by reducing the level of benefits. For example, unemployment benefits and statutory disability and sickness benefits were cut in several steps from 80% to 70% of final pay during the 1984-86 period. These measures were not very successful in substantially reducing the number of recipients of social insurance benefits, in part because private supplementary arrangements offset a large proportion of the cuts in disability and sickness benefits (see subsection 4.2 below). Moreover, minimum benefits fell compared to the average wage level because the minimum wage, to which these benefits are linked, was

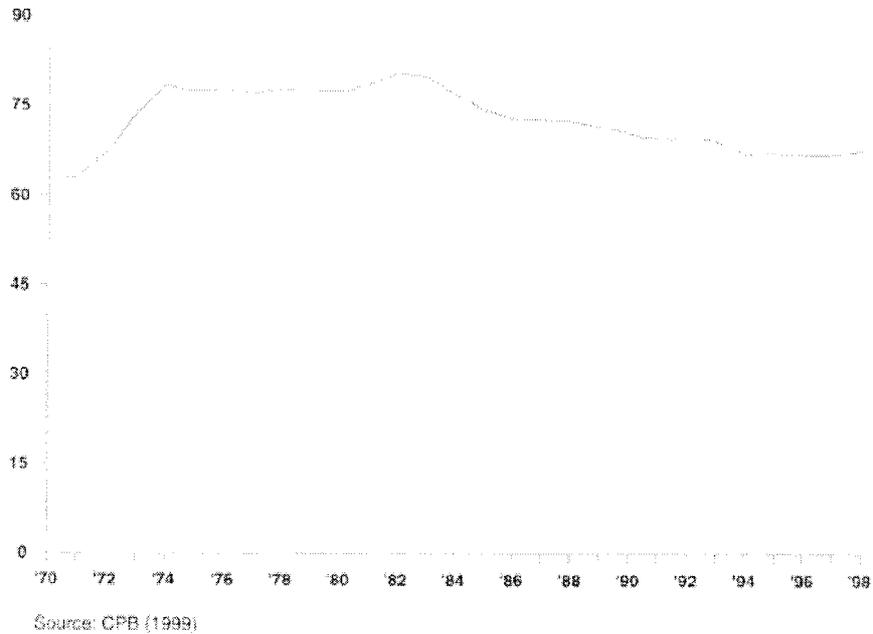


Figure 2. After-tax minimum wage relative to after-tax modal wages, the Netherlands (1970–1998).

frozen in nominal terms or indexed to prices rather than wages in a number of years (see Figure 2). Also the link of other benefits to wages was not applied in several years.⁹

Tightening Eligibility

Also other measures were aimed at combatting moral hazard of workers and benefit recipients. In particular, eligibility conditions and monitoring of benefit recipients were tightened by introducing waiting periods before recipients would be entitled to benefits, tightening the disability criteria (see subsection 4.2 below) and unemployment criteria¹⁰, and introducing more insurance elements in unemployment insurance (by linking benefits more closely to work history).¹¹

Competition and Supervision of Administration of Social Insurance

In the nineties, social insurance was reformed more fundamentally by dealing with the behaviour of benefit administrations (the so-called gatekeepers of social insurance) and employees (see below). In 1993, a parliamentary inquiry investigated the operations of the Insurance Associations. This inquiry found that the dominant position of trade unions

and employer organizations in the management of social insurance (and the absence of independent supervision) had contributed to the unbridled growth of social security outlays. The national audit office had reached similar conclusions earlier.

This created broad political support for major changes in the supervision and administration of social insurance/schemes. In particular, supervision was delegated to an independent body without the participation of social partners, the Commission for Supervising Social Insurance (CTSV). This body, set up in 1995, was established to introduce more checks and balances and to separate responsibilities in the governance structure of social insurance. The Industry Associations that had been administering public disability and unemployment insurance were abolished in 1997. The newly established National Institute for Social Insurance (LISV), which is supervised by CTSV, now contracts out the responsibility for the administration of employee insurances. The market for administering social insurance will be open to new entrants in 2001. These reforms have substantially reduced the control of the social partners over social insurance.¹²

Decentralizing the Administration of Social Assistance

The administration of social assistance in the Netherlands is currently in the process of being reformed by relying less on central regulations and more on financial incentives. In particular, the responsibility and discretion of local government is being increased, while detailed central regulations are being reduced. From 1996 onwards, Dutch municipalities have more discretion to grant supplements to welfare for special cases. According to current plans, the responsibility for financing social assistance will gradually be shifted to the municipalities after 2000. In particular, the budget that the central government provides to the local authorities will depend on factors other than the actual number of welfare claimants. In this way, local communities will be rewarded financially if they succeed in getting social assistance claimants into work.

Incentives for Employers

Measures were taken to affect not only the behaviour of employees and the benefit administration but also the behaviour of employers. In particular, the privatization of the sickness scheme (see also subg 4.2 below) resulted in premium differentiation on the basis of the health risks of the workforce in the firm. As a direct consequence, firms are encouraged to reduce these risks by improving monitoring and by enhancing prevention through a reduction in health hazards in the workplace. Also in the disability scheme financial incentives for employers were introduced (see subsection 4.2 below).¹³

The Results of the Reforms

Figure 1 and Table 3 show that the Dutch reforms, while stemming the rapid increase of benefit recipients in the seventies and early eighties, did not succeed in reversing the rise

in claimants under the age of 65 until 1994. Due to rapid employment growth, the ratio of benefit recipients to employment started to decline already in 1993. It seems very difficult to get benefit recipients back into work after the vicious circle described in section 3 has been allowed to erode the human capital of these benefit recipients.

4.2. *Sickness and Disability Insurance*

The most fundamental reforms in the Netherlands involve the sickness and disability schemes. This sub-section elaborates on these reforms.

Cutting Benefits

Initially, measures were largely aimed at combatting moral hazard of the employee. This was accomplished primarily by cutting the statutory benefit rates. Statutory sickness payments were cut from 80% to 70% of earnings in 1985. Disability payments were reduced twice, initially also from 80% to 70% of earnings in 1985 and subsequently in 1993 by making the benefit age-related. Since age serves as a proxy for work history, the second adjustment strengthens the insurance element in the system.

Supplementary benefits in collective labor contracts, however, largely offset these reductions in statutory benefits. In particular, the cuts in the statutory sickness benefits have been fully compensated by supplementary arrangements negotiated by the social partners. Similar agreements offset about half of the cuts in statutory disability benefits implemented in 1985, and around three-quarters of the cuts in 1993. Private insurers compete with pension funds to cover the gap left by cuts in the replacement rate of public benefits. Premiums are differentiated on the basis of the risk of the insured groups.

Two factors may have contributed to these offsets negotiated by the social partners. First, the government makes collective labor agreements legally binding for all firms in a particular sector. Second, the social partners do not fully internalize the adverse effects of higher benefits on moral hazard because the public scheme pays most of the benefits. In this way, the combination of public and supplementary private insurance gives rise to excessive insurance (see Pauly, 1974 and Lindbeck, 1994).¹⁴

Tightening Regulation and Improving Monitoring

In the disability scheme, criteria for eligibility were tightened. From 1987 onwards, the labor market situation could no longer be taken into account when determining eligibility for disability benefits. In 1993, the legal definition of the appropriate job was widened. In determining whether a person could find an appropriate job, one no longer restricted attention to jobs with the same skill and experience level as the previous job, but looked at the best paying jobs available to the individual. With residual earning power determining benefits, people who in the past would have received full benefits now receive only partial benefits. At the same time, the government reduced the discretion of the executive orga-

nizations by issuing specific criteria for determining disability and residual earning power. In this connection, the medical definition of disability was tightened by requiring that the disability be the objective consequence of the impairment. Finally, a disability benefit is granted for only five years, after which time the extent of disability and residual earning power is assessed again. For the existing claimants younger than 50, a program of reassessment started in 1994. The new medical examinations resulted in lower disability levels for almost half of the recipients younger than 35 and for 35% of the recipients aged between 35 and 40.

Financial Incentives

As far as the sickness scheme is concerned, the first two (for small firms) or six (for large firms) weeks of sickness had to be paid by the employer, effective in 1994. In 1996, the government went even further in using financial incentives for employers by no longer insuring sickness through the social insurance system at all. The employer is legally required to pay 70% of pay (during the entire first year, after which the disability scheme kicks in). Rather than bearing the risks themselves, firms have the option of taking out insurance with private insurance companies, which differentiate premiums according to their risk assessment. Moreover, these insurance companies monitor sick spells and provide firms with advice on how to reduce health risks of their employees. Before the privatization of the sickness scheme, Industry Associations enjoyed a monopoly in administering sickness insurance. After the privatization, private insurance companies are able to freely enter the market for sickness insurance by bidding for contracts.

Financial incentives for employers were introduced also in the disability scheme. A system of bonuses (for reintegration) and penalties (for new disability claims) was introduced in 1992, but was repealed in 1995. A new system became effective in 1998. The public system involves experience testing (on the basis of benefits paid during the first five years of disability). Employers can opt out of this public system (for the first five years of the disability benefit) by either taking out private insurance or taking financial responsibility for statutory benefits.¹⁵

Benefits of Competition

The plans for competition in disability insurance and the privatization of sickness insurance embrace two primary aims. First, by introducing competition, efficiency gains are expected to be reaped in the implementation and administration of the insurance. Indeed, employers, private insurers, and public administrators face more incentives to return the sick and the disabled back to work. Moral hazard is likely to be reduced, as competition yields information about efficient cost levels in benefit administration. Organizations that are most successful in preventing disability and encouraging revalidation and reintegration can exploit this as a comparative advantage. Relying on the discipline of the market thus reduces the need for the government to extensively regulate the benefit administration as

a monopoly. Instead, the government can rely on the ingenuity, experimentation, and tailor-made solutions of decentralized agencies.

Second, competition ensures that contributions closely match actuarial risks. Hence, employers are directly confronted with the costs and benefits of their actions on these risks; they can no longer shift the costs of their behaviour onto a collective pool. This encourages employers to reduce risks by improving working conditions and by cutting extra-statutory benefits. In this latter way, incentives for employers may indirectly enhance incentives for workers as well. By introducing incentives in both the sickness and disability schemes, the employer is responsible for combatting both sickness and disability. Hence, the system transfer between the sickness and disability schemes is eliminated. In particular, the Industry Associations are no longer encouraged to shift people from the sickness scheme, which is financed on a sectoral basis, to the disability scheme, which is financed nationally.¹⁶

Costs of Competition

Introducing competition in disability insurance does not escape a trade-off between incentives and solidarity—even though the level and duration of the insurance benefits is maintained. In particular, in order to reduce their premiums (paid to private insurance companies or, in the case of companies that opt for public disability insurance, to the public experience-rated system) and self-insurance costs, employers may try to select the good risks, thereby weakening the labor-market position of vulnerable groups. The associated increase in search and transaction costs on the labor market is especially burdensome for low-skilled workers.

Several measures alleviate this potential problem.¹⁷ First, a separate public insurance scheme for the early handicapped has been introduced. Second, various measures strengthen the labor-market position of those with health problems. To illustrate, employers may receive a special budget to cover the additional costs associated with taking on employees with weak health.¹⁸ Third, insurance premiums apply to the pool of workers in any firm. Hence, risks are pooled across all employees. Especially in large firms, improving working conditions is a much more effective method to reduce premiums than selecting employees on the basis of health conditions. Fourth, the premiums for the public scheme are subject to a maximum. This maximum premium is lower for smaller firms.¹⁹

The Results of the Reforms

The first results of the 1994 introduction of financial incentives for employers in sickness insurance point to a marked reduction in sickness absenteeism in the Netherlands of about 15%. Fully privatizing sickness insurance in 1996 reduced the incidence of sickness absenteeism by almost 5%, but is not yet clear whether this reduction is permanent.

The reforms in the disability scheme appear to have led to a one-time downward shift in an upward trend in disability claimants due to the aging of the population. Figure 3 shows that the reassessments of the existing claimants, which started in 1994, boosted the flows

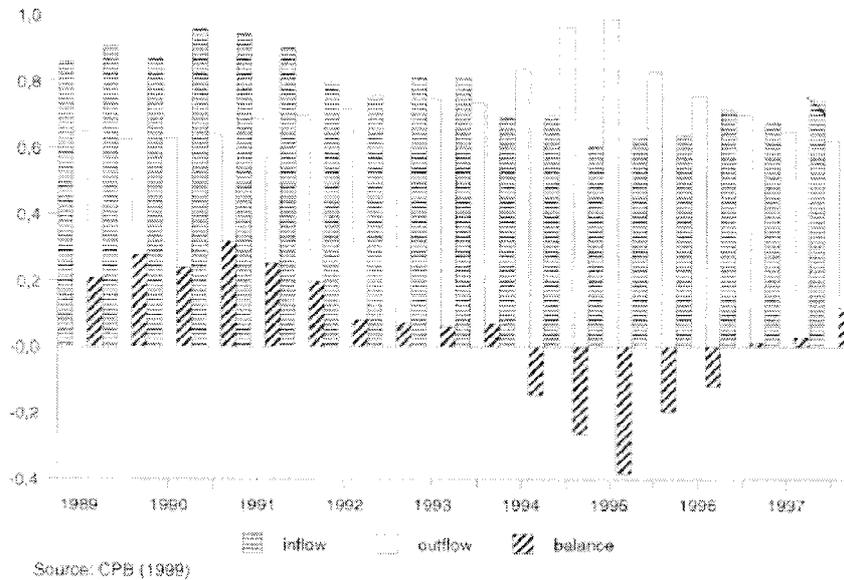


Figure 3. In flow and out flow of disability scheme in the Netherlands (in percent of employment).

out of the disability scheme. At the same time, the tighter criteria for eligibility reduced the inflows. More recently, as the program of reassessing existing claimants has drawn to an end, the number of disability claimants has resumed its upward trend.

In response to the somewhat disappointing results of the reforms, the present government has developed new proposals to improve the objective nature of the medical assessments. Indeed, changing the culture of conflict avoidance of the various participants (including the doctors making the medical assessments) has turned out to be difficult. At the same time, an overall assessment of the reforms to date is difficult because various reforms (e.g. the introduction of competition in the administration of disability insurance) are still in the process of being implemented. A controversial issue in this respect is whether the medical assessment of disability can be done by a private insurer or should always be performed in the public sector. Although the social partners have been arguing for having the private insurers perform the medical checks, the government favours keeping the assessment in the public sector.

5. Challenges Facing the Welfare State

This section discusses how various trends impact social security (sub-section 5.1) and other risk-sharing arrangements (sub-section 5.2).

5.1. *Social Security*

Several factors complicate the provision of generous mandatory social security benefits.

Aging

The aging of the population increases the burden on the welfare state because the welfare state transfers resources away from the young towards the elderly. Indeed, older workers are subject to higher disability and unemployment risk, in part because older workers may be less adaptable (see CPB, 1992 and Kapteyn and Vos, 1997). Whereas population aging thus boosts the demands on the welfare state, the means to satisfy these claims are diminishing as the working population shrinks. This reduces the commitment of younger workers to the intergenerational contract implicit in the current welfare state, thereby increasing political risks associated with mandatory insurance (see Bovenberg and van der Linden, 1997).

Political Risks

A more heterogeneous population with divergent risk features due to different levels of human capital and thus labor productivity increases the redistributive character of the welfare state. To illustrate, compared to skilled workers, unskilled workers face a larger unemployment risk. Hence, unskilled labor is cross-subsidized by skilled labor in unemployment insurance—even if not only premiums but also benefits rise with income. The increasingly redistributive character of the welfare state may well reduce the political support of the middle class for generous social security provisions. By using the governance structure of voice in this way, individuals with a lot of marketable skills may opt out of the social contract with vulnerable groups (see OECD, 1997).

International Mobility

Internationally mobile individuals may opt out of the social contract in an alternative way. In particular, they may use the exit option by moving to countries with a lower level of mandatory social insurance. At the same time, high levels of mandatory social insurance may attract individuals from abroad who are likely to benefit from the system. More generally, increasing mobility across risksharing pools erodes risksharing by allowing the good risks to opt out (see Sinn, 1990 and 1997).

Also international mobility of capital may complicate the provision of social security if social security premiums are shifted forward onto capital. In particular, social security taxes are not paid by employees in terms of lower net wages if effective wage floors constrain the flexibility of after-tax wages. In this way, high social security taxes harm the international competitiveness of domestic firms (see Lejour and Verbon, 1996).

Diversity and Flexibility

A more heterogeneous population complicates the determination of a uniform level of insurance, thereby increasing the transaction costs of the political process. An increased preference for freedom to choose as a result of more emancipated consumers exerts a similar impact. Moreover, a more heterogeneous population makes it more difficult to identify the truly needy. At the same time, increased flexibility of labour supply behaviour allows employers and workers to increasingly exploit social insurance provisions (see CPB, 1992).

5.2. Other Risk-Sharing Arrangements

The architects of the modern welfare state, such as Beveridge, stressed that work and the family should be the principal foundation of social welfare. Indeed, a well-functioning labour market, the two-earner family and more efficient capital markets can reduce the need for social insurance provided by the state. This section explores how various trends affect these other risk-sharing arrangements.

Labour Market

An efficient labour market yielding a high level of employment is probably the most important complementary institution to the welfare state. A more flexible labour market with low entry barriers for outsiders and greater reliance on contract labour, self-employment, part-time employment and job sharing, reduces the risk of long-term unemployment and thus the need for extensive social protection.²⁰ The same holds true for a less rigid allocation of leisure, education, care, and work over the life cycle. More generally, increased flexibility, mobility, employability (including the capacity to continue to learn), and adaptability are alternative ways to reduce risk. A more flexible labor market can thus facilitate the role of the labor market in providing insurance. The same holds true for higher labor-force participation of women associated with improved human capital of women.

At the same time, however, a more flexible labor market will increase wage dispersion, thereby placing greater demands on the social protection system. More generally, a weaker position of low-skilled individuals reduces the potential role of the labor market in protecting these individuals. Indeed, low-skilled workers with a weak position on the labor market are expected to continue to put a heavy burden on the social security system. The heterogeneity of labor productivity within the population will rise further as a consequence of internationalization and technological and organizational developments favoring skilled labor with multiple skills (see Snower, 1996). Organizational developments, which allow employers to better assess individual productivity of workers, increasingly 'select out' individuals whose productivity lies below the minimum income level guaranteed by the welfare state. These individuals with few marketable skills thus increasingly lack access to the labor market so that they become an increasing burden for the welfare state. Also medical technology is likely to reveal more of the actual features and risk characteristics of

individuals. Accordingly, both organizational and technological developments increasingly lift Rawls' veil of ignorance. Once this veil has been lifted, vulnerable groups can no longer insure themselves on the market against low earning capabilities. Moreover, as vulnerable individuals become increasingly trapped in unemployment or low paying jobs, while other high-skilled individuals face a very low risk of becoming unemployed, the government can rely less on the insurance principle to ensure solidarity between individuals with different levels of human capital. Hence, protecting individuals with few marketable skills and high risk characteristics thus requires more explicit redistribution.

Capital Market

Improved investment and risk-sharing arrangements on modern capital markets expand the possibilities for private insurance markets. The globalization of capital markets allows insurance companies to spread risks across larger and better diversified pools. Moreover, technological improvements can reduce the costs of information associated with private insurance, thereby reducing transaction costs and mitigating adverse selection and moral hazard. Modern capital markets allow for more income-smoothing during the life cycle, which is presently still undertaken by the welfare state.

Family

Another institution for risk sharing that can relieve the burden on the welfare state is the family. Families are supported by norms and values and can address the failures of insurance markets. In particular, norms and values prevent low-risk people from opting out of the family pool, thereby avoiding adverse selection. Moreover, family members can easily monitor each other, thereby preventing moral hazard.

The improved labor-market position of women, which is associated with better educational opportunities, has boosted the number of dual income families. In these families, partners can insure each other against temporary income losses (see e.g. Esping-Andersen, 1997). Indeed, as the traditional family with a single breadwinner with a full-time job caring for many dependants becomes less important, the minimum wage and the benefit levels in the social insurance system can be reduced (see OECD, 1997).

On the negative side, however, the organization of the division of tasks within a two-earner family is more complicated than in a family with a single income-earner. This taxes the marriage relationship, thereby contributing to increased divorce risk. Also the reduced access of young men with few marketable skills to the labour market has increased the pressure on the family because it has made these men less attractive marriage partners. These trends increase the number of single-parent families who cannot benefit from risk-sharing arrangements between partners and are thus particularly vulnerable to poverty. In this way, the inequities between those who do not need the welfare state (i.e. the members of two-earner households) and those who are dependent on it (i.e. the members of single-parent households or singles) increases. Accordingly, redistribution in favour of households

Table 4. Long-term unemployment in various countries.

	1985	1990	1995
	% of unemployment		
Netherlands	58.8	47.1	46.7
Germany	53.7	45.7	48.7
European Union	54.6	51.0	49.2
United States	9.5	5.6	9.7

Source: Bovenberg (1997).

with only one adult may be called for. This, however, may encourage the break-up of households.

6. The Unfinished Agenda

Remaining Challenges

The Netherlands is not yet adequately prepared to address the challenges of the 21st century. More reforms are therefore necessary. The major remaining policy problems concern the low participation rates of older workers and of workers with few marketable skills.

Benefit recipients still seem to have very limited access to work. This is reflected in the high share of the long-term unemployed in overall unemployment. While the unemployment rates in the Netherlands and the United States are rather similar at the moment, the incidence of long-term unemployment is higher in the Netherlands (see Table 4). In terms of long-term unemployment and the low access of vulnerable workers with few marketable skills to work, the Dutch labour market resembles much more its European counterparts rather than its American counterpart. Thus, also the Dutch have not yet been able to reconcile high benefit levels for needy groups with high levels of employment for these groups. Indeed, most of the employment growth in recent years benefited those who did not draw on social benefits—such as the partners of breadwinners and young people lacking sufficient work history to be eligible for earnings-related benefits.

The official unemployment figure substantially underestimates the overall level of inactivity in the Netherlands. Broadly defined unemployment, including hidden unemployment, may well exceed 20%.²¹ In particular, the number of people collecting unemployment benefits is about 75% higher than the number of unemployed who are actively looking for work (see Figure 4). A large portion of those collecting benefits but not looking for work are older than 57½ years old, an age above which they no longer have to look for work in order to be eligible for unemployment benefits. At the same time, in addition to discouraged workers and involuntary part-time workers, a substantial number of disability claimants are still estimated to be hidden unemployed. Indeed, the number of people collecting disability benefits remains about two to three times the rate in neighbouring countries. Disability, unemployment, and early retirement schemes have reduced the participation rate of those aged 50–64 to low levels.

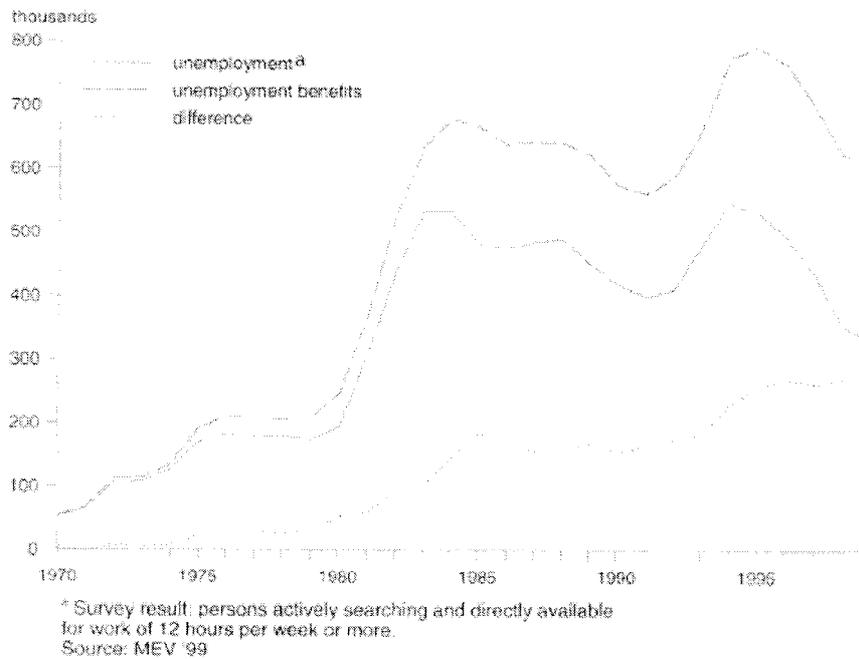


Figure 4. Unemployment in the Netherlands, 1970–1999.

The low unemployment rate may thus be a sign of weakness rather than strength because it indicates that many people on social security benefits are not actively looking for work. Indeed, the success of the Dutch economy should not be judged on the basis of the unemployment rate, but rather on the way it utilizes the human capital of its population. On this latter score, the Dutch still have a long way to go.

A Broad Strategy

A single solution addressing the various trends is not available. Countries are thus advised to rely on a broad range of measures. Policies are often complementary, in the sense that the effect of each policy is greater when it is implemented together with other policies than when it is introduced in isolation (see Coe and Snower, 1997). Employing several instruments is attractive also for political reasons: costs and benefits are spread over several groups. To illustrate, to reduce the claims of low-skilled workers on social security, the government can combine the stick of lower unconditional benefits with the carrot of tax cuts and deregulation of sheltered sectors aimed at raising the demand for low-skilled labour. Most importantly, taking action on several fronts diversifies risks. Indeed, the process of social innovation is a process of trial and error in the face of current problems and newly

emerging trends. The rest of this paper discusses some of the major elements that could be part of such a strategy.

Enhancing Employability of Vulnerable Groups

Technological and organizational developments increasingly put vulnerable individuals with few marketable skills at risk. To prevent long-run dependency and social exclusion, the government should shift away from passive towards active support. This latter support should strengthen the earnings capacity, skills, adaptability, and employability of vulnerable individuals. Social benefits were originally intended primarily to relieve liquidity constraints by carrying people over relatively short unemployment spells. At the present time, however, structural unemployment and long-term dependency require more active, interventionist policies with conditional and in-kind benefits (e.g. training and other investments in human capital) to avoid social exclusion and to raise labour productivity by building up human capital. By enhancing the employability and earning capabilities of vulnerable individuals with few marketable skills, social insurance addresses social exclusion and family instability at the root. These interventions thus imply a shift away from remedial to preventative measures.

Conditional transfers based on the transaction principle (i.e. balancing the carrot of the benefit with the stick of certain obligations) can be used to screen claimants, thereby alleviating moral hazard. The obligations imposed on benefit recipients give them a direct interest in improving their circumstances. Moreover, in-kind transfers can link support to activities (such as training, unpaid trial employment, community work) that encourage rather than discourage re-entry into employment.

Consequences for the Benefit Administration

A shift towards more active policies involving conditional and in-kind benefits calls for tailor-made solutions implemented by a decentralized benefit administration that exploits its information advantage about individual circumstances. More generally, a more heterogeneous and diverse population requires more tailor-made and innovative solutions. Accordingly, social security administrations should be transformed from hierarchical bureaucratic organizations to more decentralized, entrepreneurial and customer-oriented bodies. While the central government is still likely to play an important role in setting the rules of the game and in determining the levels of compulsory insurance, it may actually want to leave the provision of social services and benefits increasingly to decentralized public and private agencies.

The behavior of the decentralized agencies can be affected by various kinds of financial incentives. If the administration of unemployment benefits is increasingly delegated to decentralized agencies, more of the budget responsibility can also be decentralized in order to avoid moral hazard of the decentralized agencies. The risks of this strategy of relying on financial incentives include cream-skimming behaviour of the decentralized agencies (they focus on those individuals with good risk features) and unequal treatment of similar

people. Accordingly, financial incentives should be complemented by supervision and regulations protecting vulnerable groups. A mix of control and competition may thus exploit the strengths of both coordination mechanisms, thereby improving the trade-off between solidarity and incentives in an environment that calls for more diversity and experimentation.

Continuous Learning and Commitment

This continuous process of reform involved a trade-off between flexibility (i.e. experimentation), and commitment (i.e. stability and certainty). Stability of social insurance provisions is valuable because these provisions can be regarded as long-term contracts between the government and its citizens. In order to protect older groups that can not adjust flexibly to changes, reforms may have to be phased in gradually. Accordingly, in reconciling confidence in the contracts with timely adjustments, policymakers should anticipate future trends so that they can, in a timely fashion, adjust the welfare state and the mix of various coordination mechanisms in providing insurance. Indeed, sustainable solidarity requires constant adaptation to new circumstances. This is a challenge faced by the Netherlands and other countries alike.

Notes

1. A discussion of these reforms is beyond the scope of this paper. For a broad overview of Dutch policymaking in recent years, see CPB (1997), Bovenberg (1997), Broersma, Koeman and Teulings (1999), Hartog (1999), Teulings, van der Veen and Trommel (1997) and Visser and Hemerijck (1997).
2. For a formalization of moral hazard in the context of social insurance, see Aarts and de Jong (1996a) and Barr (1993).
3. Aarts and de Jong (1992) estimated the hidden unemployment component of the disability program to be about 40 percent.
4. Haveman, Halberstadt and Burkhauser (1984) and Aarts and de Jong (1996b) explore both the similarities and differences between the systems of disability insurance in various European countries. For an extensive economic analysis of disability insurance in the Netherlands, see Aarts and de Jong (1992).
5. These contribution rates, even if based on the insurance principle, are often viewed as taxes. Indeed, mandatory social insurance typically involves significant cross-subsidies between various workers.
6. For a detailed description of this vicious circle, see OECD (1987), CPB (1992) and CPB (1997).
7. See also Lindbeck (1995), who argues that the inertia created by habit and norms implies that disincentives tend to be stronger in the long run than in the short run.
8. Replacement rates tend to be relatively high at low income levels because social assistance guarantees a certain minimum income independent of previous earnings. CPB (1995) and OECD (1994) (see also Martin (1996)) document how replacement rates decline with income levels.
9. Simulations with MIMIC, an applied general equilibrium model of the Netherlands, suggest that a 10% cut in social benefits related to unemployment and disability, together with a cut of the same magnitude in the official minimum wage (to which minimum benefits are linked) reduces the unemployment rate by 1½ percentage points and boosts employment by 3½ percent. These simulations assume that three quarters of the loss in the public disability benefit is privately insured through supplementary arrangements agreed upon in collective bargaining (see Gelauff and Graafland (1994), section 10.5). These numbers are broadly consistent with the estimates in Teulings, van der Veen and Trommel (1997, chapter 6). They find on the basis of some guesstimated labor-supply elasticities that the increase in the benefit level in the decade following 1974 (see Figure 2) boosted unemployment by 100,000 persons.
10. Before 1987, an employee had to have worked for at least 78 days in the previous year in order to be eligible for unemployment benefits. From 1987 onwards, an employee must have worked in 26 out of the previous 52 weeks.

11. Since 1995, an employee can draw on earnings-related unemployment benefits for a period longer than half a year only if that employee has worked at least 52 days during four out of the last five years. Before 1995, this requirement applied to only three of the last five years.
12. Social partners, however, are members of the board supervising the Centres for Work and Income. These centres, which are in the process of being set up, feature one front desk for job placements and the receipt of welfare benefits and social insurance benefits.
13. In unemployment insurance, the part of the premium that is specific to each individual Industry Association was increased.
14. Free choice yields the optimal insurance contract only if an insured person can insure risk at only one insurance company. If the insured has access to several insurance companies, the market yields overinsurance. Indeed, insurers typically demand that the insured person have no contracts elsewhere, realizing that this would reduce the incentives of the insured person to prevent the insured event.
15. Competition between the private insurance companies and the experience-rated public scheme is complicated by the fact that the public scheme employs pay-as-you-go financing, while private companies use capital funding.
16. The reforms, however, have increased the incentives facing employers to put their workers on unemployment benefits, which are financial partly on a sectoral basis and partly on a national basis, rather than on disability benefits, which are now the financial responsibility of the employer.
17. Furthermore, measures aimed at returning claimants of disability benefits to work have been introduced and, more recently, extended. Without these measures, persons with a history of disability run the risk of being unable to find jobs, as employers discriminate against them in order to save on the costs of disability insurance. With these measures, instead of competing on the composition of their work forces, employers are more likely to compete by reducing disability risks through better working conditions and by facilitating the reintegration of the disabled. In this way, these measures mitigate the trade-off between incentives and solidarity that is associated with more competition in social insurance. The Netherlands also has always had a national network of sheltered workshops for those who are not employable in regular jobs.
18. The Netherlands does not require employers to take on a minimum quota of disabled workers.
19. In 2000, the average experience-rated premium in the public scheme is 1.4%. The maximum premium for small firms (with a total wage bill of less than 15 times the average wage bill per worker) amounts to 4.2%, and that for large firms to 5.6%.
20. The Dutch labor market has become more flexible in recent years. At the same time, the growth of part-time work has facilitated the access of women to the labor market. See, e.g., Bovenberg (1997) and CPB (1997).
21. McKinsey (1997), for example, estimated overall unemployment to be between 20% and 23% in 1996, while the official unemployment rate was only 7.4% at that time. The OECD has come up with similar figures for broad unemployment in its employment outlook.

References

- Aarts, L. J. M., and Ph. R. de Jong. (1992). *Economic Aspects of Disability Behaviour*. North Holland, Amsterdam.
- Aarts, L. J. M., and Ph. R. de Jong. (1996a). "Privatization of Social Insurance and Welfare State Efficiency: Evidence from the Netherlands and the United States." Paper prepared for the International Conference on Institutions, Markets and Economic Performance, Utrecht, December 1996.
- Aarts, L. J. M., and Ph. R. de Jong. (1996b). "European Experiences with Disability Policy." In J. L. Mashaw, V. Reno, R. V. Burkhauser, and M. Berkowitz (eds.), *Disability, Work and Cash Benefits*. W. E. Upjohn Institute for Employment Research, Kalamazoo, Michigan.
- Barr, N. (1993). *The Economics of the Welfare State*. Weidenfeld and Nicholson, London.
- Bovenberg, A. L. (1997). "Dutch Employment Growth: An Analysis." *CPB Report 1997/2*, pp. 16–24.
- Bovenberg, A. L., and A. S. M. van der Linden. (1997). "Can We Afford to Grow Old?" In *Family, Market and Community; Equity and Efficiency in Social Policy*. Social Policy Studies, No. 21, OECD, Paris.
- Broersma, L., J. Koeman, and C. N. Teulings. (1999). Labour Supply, the Natural Rate and the Welfare State in the Netherlands, *Oxford Review of Economic Policy*.
- Caballero, R. J., and M. L. Hammour. (1996). *The Macroeconomics of Specificity*. National Bureau of Economic Research, NBER Working Paper no. 5757, Cambridge, Mass.

- Coe, D. T., and D. J. Snower. (1997). "Policy Complementarities: The Case for Fundamental Labour Market Reform." Centre for Economic Policy Research, CEPR Discussion Paper no. 1585.
- CPB Netherlands Bureau for Economic Policy Analysis. (1992). *Scanning the Future: A Long Term Scenario Study of the World Economy 1990–2015*. CPB Netherlands Bureau for Economic Policy Analysis, Sdu Publishers, The Hague.
- CPB Netherlands Bureau for Economic Policy Analysis. (1995). *Replacement Rates: A Transatlantic View*. Working Paper No. 80, The Hague.
- CPB Netherlands Bureau for Economic Policy Analysis. (1997). *Challenging Neighbours: Rethinking German and Dutch Economic Institutions*. Springer Verlag, Berlin.
- CPB Netherlands Bureau for Economic Policy Analysis. (1998). *Centraal Economisch Plan 1998*. CPB Netherlands Bureau for Economic Policy Analysis, Sdu Publishers, The Hague.
- CPB Netherlands Bureau for Economic Policy Analysis. (1999). *Centraal Economisch Plan 1999*. CPB Netherlands Bureau for Economic Policy Analysis, Sdu Publishers, The Hague.
- Esping-Andersen, E. (1997). "Welfare States at the End of the Century: The Impact of Labour Market, Family and Demographic Change." In *Family, Market and Community; Equity and Efficiency in Social Policy*. Social Policy Studies, N. 21, OECD, Paris.
- Eurostat. (1994). *Ausgaben und Einnahmen des Sozialschutzes 1980–1993*. Eurostat European Communities, Luxembourg.
- Gelauff, G. M. M., and J. J. Graafland. (1994). *Modelling Welfare State Reform*. North Holland, Amsterdam.
- Hartog, J. (1999). "Wither Dutch Corporatism?" *Scottish Journal of Political Economy* (forthcoming).
- Haveman, R. H., V. Halberstadt, and R. V. Burkhauser. (1984). *Public Policy Toward Disabled Workers*. Cornell University Press, Ithaca, New York.
- Kapteyn, A., and K. de Vos. (1997). "Social Security and Retirement in the Netherlands." NBER Working Paper No. 6135, Cambridge.
- Lejour, A. M., and H. A. Verbon. (1996). "Capital Mobility, Wage Bargaining, and Social Insurance Policies in an Economic Union." *International Tax and Public Finance* 3, 495–514.
- Lindbeck, A. (1994). "Uncertainty under the Welfare State, Policy-induced risk." OCFEB Research Centre for Economic Policy, Research Memorandum no. 9403, Erasmus University, Rotterdam.
- Lindbeck, A. (1995). "Hazardous Welfare-State Dynamics." *American Economic Review* 85(2), 9–15.
- Ljungqvist, L., and T. J. Sargent. (1998). "The European Unemployment Dilemma." *Journal of Political Economy* 106, 514–550.
- Martin, J. P. (1996). "Measures of Replacement Rates For the Purpose of International Comparisons: A Note." *OECD Economic Studies* 26, 99–115.
- McKinsey Global Institute. (1997). *Boosting Dutch Economic Performance*. Amsterdam.
- OECD. (1987). *Economic Survey of the Netherlands*. OECD, Paris.
- OECD. (1994). *The Jobs Study: Evidence and Explanations*. OECD, Paris.
- OECD. (1997). *Family, Market and Community; Equity and Efficiency in Social Policy*. Social Policy Studies, No. 21, OECD, Paris.
- Pauly, M. V. (1974). "Over Insurance and Public Provision of Insurance. The Roles of Moral Hazard and Adverse Selection." *Quarterly Journal of Economics* 88, 44–62.
- Sinn, H. W. (1990). "Tax Harmonization and Tax Competition in Europe." *European Economic Review* 34, 489–504.
- Sinn, H. W. (1997). "The Selection Principle and Market Failure in Systems Competition." *Journal of Public Economics* 66, 247–274.
- Snower, D. J. (1996). "The Modern Welfare State: Problems and Suggested Reforms." *Empirica* 23, 207–226.
- Teulings, C. N., R. van der Veen, and W. Trommel. (1997). *Dilemmas in Social Insurance* (in Dutch). VUGA, The Hague.
- Visser, J., and A. Hemerijck. (1997). *A Dutch Miracle*. Amsterdam University Press, Amsterdam.