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Germany's Social Security System under Strain

by

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Abstract: Abstract: Germany's social security system is surveyed, its benefits and contributions are discussed. The expansion of this system in the last decades is described, its impact on employment and growth is studied and proposals for the reform of the system are discussed.

Keywords: Social security system; welfare state; health; unemployment and old age insurance; policy reform.

JEL classification: H5, I18, I3, J26

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Germany's Social Security System under Strain

The reform of the social security system and the welfare state is Germany´s other major structural policy issue besides the reform of the labor market. Clearly, the social security system has hit a financing constraint. It is not sustainable in its present form even neglecting the problems of an ageing population, and it can definitely no longer be financed in an ageing society. Moreover, it has a negative impact on the labor market, i.e., on labor demand, on labor supply and also on the equilibrating mechanism that has to bring demand and supply into balance.[1]

The Benefits Provided by the Social Security System

Germany is characterized by a generous social security system representing one of the aspects of the social market economy and making up an important element of the social budget. The social security system consists of four major elements: the old age pension system, nurtured care, health insurance, and unemployment insurance with two types of unemployment benefits. The bulk of the expenditures of the social security system are financed by contributions paid half and half by employees and employers, about one fifth is financed from tax revenue. The financing of the social security system is thus mainly linked to the labor contract. The basic elements of this insurance system are as follows.

Old-age pension system. The old-age pension system provides an income for the pensioner amounting to 70.3 per cent of the net average wage income of all the insured before retirement.[2] This is the pension for a full-time employee who retires at age 65 and who has a record of paid contributions for 45 years during his working life. It amounts to 1 072 euros per month net of taxes and contributions (941 euros in Eastern Germany in 2002). For each year in which he and his firm have paid contributions the insured receives "credit" points (*Entgeltpunkte*) that are influenced by the ratio of the individual's wage income relative to the average wage income. A shorter working time means less credit points; a lower income while working also means less credit points.

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[1] I appreciate critical comments by Alfred Boss and Carolin Geginat. The manuscript is a chapter to a planned book on "The German Economy".

[2] Council of Economic Advisers, Annual Report 2002, Table 69*.

In 2003, a minimum level of pensions has been introduced for those who would receive a pension below social welfare. Before, this group had to rely on social welfare where the government could ask the children of the welfare recipients to finance the social welfare payments for their parents provided the children had a sufficient income. This obligation of children was given up with the state stepping in. The introduction of a minimum pension has to be considered as yet another step in the expansion of the welfare state.

Old-age insurance includes an invalidity insurance covering the case when an individual becomes physically unable to work and an insurance for surviving dependents covering the pensions for the widow or widower and orphans.

Membership in the old-age insurance system is compulsory for all dependent employees except civil servants. Contributions are paid proportional to labor income; the contribution rate is 19.5 per cent of the gross wage in 2003. Contributions are mandatory up to an income ceiling which is normally raised in relation to the increase in income but not indexed in a strict sense; in 2003, the ceiling was raised in a discretionary fashion and by a large amount (13 per cent). In 2003, this contribution ceiling stands at 5100 euro per month, above the average monthly labor income of 2217 euro per month. The ceiling for Eastern Germany is lower (4250 euro per month). Employees with an income higher than this limit pay contributions on the ceiling income. Regular government employees are insured in the same system as all other employees. Civil servants, i.e. government employees with official governmental functions, however, such as judges, law enforcement officers and specific administrators, though dependently employed, are not included in that system and have their pensions paid from tax revenue; there is no governmental pension system for this group. Self-employed can opt to be a member of the public system. There is a specific old-age system for coal miners.

The pension system is a pay-as-you-go system in which the benefits of the pensioners are financed momentarily by the contributions paid by those employed and their firms. Actually, there is no capital fund in this system; the reserve requirements were lowered in 2002 and 2003 from one month's to half a month' expenditures in order to be able to meet payment obligations.

In 2002, a supplementary voluntary system that is capital funded was introduced. The insured can save an additional amount of up to 4 per cent of their wage income in a private contract subsidized by a tax-transfer scheme. The 4 per cent apply from 2008 onwards when the voluntary system is fully phased in. Expenditures for this insurance can be deducted from income up to an amount of 2100 €. For those with lower income who cannot use the expenditure deduction the government pays a transfer declining with income and depending on family status and per child. The supplementary private insurance is voluntary; from time to time discussion flares up whether it should become mandatory.

With the introduction of this supplementary system, the benefit level of the pay-as-you-go system will be reduced from 70 per cent – it was 70.3 per cent in 2002 - to 67 per cent of the net wage over time.[3] Adding the pension level of the traditional and the additional system, 75 per cent of the net wage will be reached when the first pensions will be provided by both systems. Definitely, the introduction of the privately funded system on a voluntary basis was a step in the right direction; a funded system allows to accumulate interest and thus represents efficiency gains relative to the pay-as-you-go system that reduce the costs of old age. However, it is indeed amazing that a major reform of a pension system that hits the financing constraint and is considered to be a major reform step towards sustainability of the pension system in an ageing society ends up in a pension level that is higher than the previous system could provide.

Annual adjustments of pensions are performed according to a formula, which contains the increase in the gross wage income in a modified form. The increase in the gross wage, expressed as the ratio of the gross wage income of the previous period to the gross income of the period before the previous period, is adjusted by a factor including the change in the contribution rate to the pension system.[4] A rise in the contribution rate

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3 This holds for the actual pension formula. Using the previous pension formula the reduction is claimed to be larger.

4 The monthly pension (MP) is determined by individual factors, namely the credit points (CP) according to the years of insurance, the entry factor, i.e. earlier or regular retirement (EF), the type of pension (TP), i.e. (old age, dependent person), and the general factor of the pension value (PV)

$$MP = CP \cdot EF \cdot TP \cdot PV \,.$$

According to the new formula introduced in 2002 the pension value will be determined by

$$PV_t = PV_{t-1} \cdot \frac{GW_{t-1}}{GW_{t-2}} \cdot \frac{0.9 - CR_{t-1} - VCR_{t-1}}{0\text{-}9 - CR_{t-2} - VCR_{t-2}}$$

implies a lower augmentation of pensions. In a similar way, an increase in the contribution rate to the government-supported privately funded system reduces the increase in pensions. Note that contributions to the health insurance, to unemployment insurance and natural care insurance as well as income taxes are not deducted. Thus, the pension formula is not linked to the net wage, but to a modified net wage or a modified gross wage.

Subtracting the contribution rates links the increase in pensions to the financing side. In that sense, the ageing population is included in the pension formula. However, the contribution rates are politically determined variables; they do not represent an objective basis for the calculation of pension. In order to make the pension system independent from political decisions, the increase in the pensions should be coupled to an objective variable, especially demographics.

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starting with the year 2011. The variables are defined as follows: GW gross wage sum per worker, CR average contribution rate to the public pension fund, at 0.195 in 2003 and VCR contribution rate to the voluntary funded system with government support, at 0.04 in 2008. Until 2010 pensions will be determined by a formula with 1instead of 0.9:

$$PV_t = PV_{t-1} \cdot \frac{GW_{t-1}}{GW_{t-2}} \cdot \frac{1 - CR_{t-1} - VCR_{t-1}}{1 - CR_{t-2} - VCR_{t-2}}$$

For 1999, a demographic factor was legally introduced into the pension formula by the Kohl government. This, however, was suspended by the Schröder government for the years 1999 and 2000 immediately after winning the 1998 election as a fulfilment of an election promise. The demographic formula was discontinued completely when the above-described new formula was introduced in 2001. This clearly was a mistake if the long-run issue of intergenerational financial restrictions is taken into consideration.

The statuary retirement age is at 65 years for men and from 2005 on also for women with some adjustments. The effective retirement age, however, lies at 60.6 years in West Germany (in 2001) and at 58.6 in Eastern Germany. The difference between the statuary and the effective age is due to a variety of factors. Whereas the statuary retirement age of 65 applies to the case of a contribution period of at least five years, earlier retirement is possible under other conditions. First, part of the early retirement age is due to disability where the average age is 51.4 in West Germany. Second, the legal retirement age for handicapped persons is at 60; it is being raised now to 63. Third, persons who have paid contributions of a minimum of 35 many years can retire at 63. A deduction of 3.6 per cent of the pension per year of earlier retirement is made for each year of earlier retirement for men (0.3 per cent per month). Fourth, the retirement age for women was at 60 until 1999. It will be raised to 65 in several steps. Fifth, earlier retirement is possible if a person is unemployed starting with 60. Again the above deduction is required, for instance 18 per cent for a retirement at 60. In addition to the earlier retirement rules for the unemployed, there are stipulations favoring the exit from the labor market for those who are under 60. The unemployed who are 58 and older no longer have to be available to the labor market. After signing a declaration that they no longer intend to work they receive unemployment benefits until they are 60 and pensions without a deduction afterwards. A new law passed in 2003 will enable the unemployed to exit from the labor market even at 55. Moreover, employees at 55 and older can switch to a half-time job for a five year period in which they work half-time for the first part of the period and are getting paid in the second half without working. They then can go into retirement. In short, the pension system has been used to reduce the labor supply and to supposedly solve the unemployment problem.

These arrangements represent incentives to retire early. The deduction of 0.3 per month of early retirement is not on an actuarial basis, it would have to be higher if it were calculated according to actuarial principles. There is an implicit tax on labor before retirement or a preferential treatment of early retirement estimated at being equivalent of roughly 35 per cent of the net wage earnings from working an additional year (Gruber and Wise 2002 p.55).[5] Even when these calculations do not reflect all institutional changes that are actually in effect and even if some changes have been raising the effective retirement age, there remains strong mechanisms operating in favor of early retirement.

Nurtured care. In the nurtured care insurance, introduced in 1995, benefits include payments for those in nursery homes and, to a smaller extent, for those who are taken care of by their families. Contributions amount to 1.7 per cent of the gross wage. When the nurtured care insurance was introduced, a religious holiday was abolished to gain an additional working day and thus to reduce overhead labor costs. The state of Saxony chose to keep the holiday; in order not to augment labor costs for firms, the contribution of 1.7 per cent of gross wage is completely footed by the employees.

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[5] This relates to the pre-Riester reform. According to Gruber and Wise, the present value of future benefits in Germany falls by 18 per cent, if retirement is postponed by five years from 60 to 65.

Health system In the public health system, costs for medical treatment by physicians and hospitals are covered. This also applies to medicine except for a fee per medicine. Health insurance includes all dependent family members including children. Where both husband and wife are employed, contributions are calculated for each individual in proportion to their wage income. Children are insured with the highest earner. Coverage applies to the employed, the unemployed, and the retired. When a person is unemployed, the unemployment insurance picks up the contributions to the health insurance. For those who receive social welfare the municipalities pay the contributions to health insurance; for those recipients of social welfare who are not covered by health insurance the municipalities pay the health costs directly. Medical costs are covered until someone is allocated to the invalidity insurance. For civil servants, the government pays an assistance of 50 to 70 per cent of health costs. In principle, there is no time limit for insurance coverage; people with longer illness and after unsuccessful rehabilitation are assigned to the invalidity insurance. Health insurance also pays 80 per cent of the gross wage starting with the seventh week of illness. During the first six weeks of illness, 100 per cent of the gross wage is paid not by the insurance but the employing firms. Moreover, a maternity benefit is provided as substitute to the wage six weeks before and eight weeks after giving birth. A maternity benefit is also provided in the context of social welfare.

Insurance is mandatory for all who are dependently employed. Above an income threshold of 75 per cent of the contribution ceiling to the pension insurance (insurance ceiling), there is an exit option from the public system; in 2003[6], this insurance ceiling stands at 3825 euro per month.

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[6] Contribution ceilings and insurance ceilings (ceiling for compulsory contribution) are not identical in the different branches of social security (see table). In 2003, the contribution ceilings of the old-age pension system and of the unemployment system were raised from 4500 € to 5100 € (there is a somewhat lower ceiling in Eastern Germany). The insurance ceiling for the health system is at 75 per cent of the contribution ceiling of the public pension system.

Contribution ceiling and insurance ceiling, 2003

	Contribution ceiling	Mandatory Membership	Insurance ceiling
Public old-age pension insurance	5100 € (West);4250€ East	Dependently employed	None
Public health insurance	3450€	Dependently employed up to the insurance ceiling.	75 per cent of the contribution ceiling of the old-age pension system 0.75x 5 100 €=3825 €
Unemployment insurance	5100€	Dependently employed	None

There also is a cap on income of 3450 euro per month for which contributions are calculated (contribution ceiling). The contribution rate is at 14.4 per cent of the gross wage. 88.5 per cent of the population is covered by the public health system, 8.9 per cent by private insurance. 2.4 per cent are covered by other systems in case of illness, for instance by social welfare. Only 0.2 of the population has no health coverage.

Unemployment insurance. The benefits of the unemployment system have already been portrayed in the last chapter. Membership is mandatory for all dependently employed. The contribution ceiling is at 5100 euro.

In addition to these four types of insurance, social security also includes a mandatory *insurance for accidents* occurring at the work place and an insurance for health hazards associated with work. Actually, this insurance was established in 1884 under Bismarck in order to limit expenditures of firms in case of legal disputes. Two other branches of social security also came into existence under Bismarck, the health insurance in 1883 and the old-age and invalidity insurance in 1889. The unemployment insurance was added in 1927 and the nurtured care insurance in 1995.

A specific feature of the German social security system is that it is self-administered by the social partners, i.e. the trade unions and the employer' associations. The voting procedures of self-administration are specified by law.

Another institutional feature of social insurance as well as of the other aspects of social assistance is that social courts have been established that are to deal with legal issues, especially claims of the entitled vis-à-vis the social insurance system or the government. The court system is structured vertically with three tiers, on the local, state and federal level, the Federal Social Court having the final say. The social courts are a specific form of the administrative courts.

Social Welfare

Another important element of Germany´s social system is social welfare (*Sozialhilfe)*. Social welfare is paid to allow life in dignity for those who cannot make their living by themselves. This includes the elderly without sufficient income as well as those who are unable to work, who do not find a job and for whom the unemployment schemes do not apply. Social welfare benefits require neediness meaning having no income and no wealth. They are means-tested and their increase is actually linked to the augmentation of pensions. Conceptually, they are linked to a price index for low-income groups though not automatically indexed to it. Benefits consist of a regular monthly payment and specific payments for housing rents as well as heating costs that both are covered up to a limit. Specific payments are also made for obtaining household goods. For those recipients that are not covered by public health insurance, medical costs are covered. Payments are differentiated according to marital status and the number of children and their respective age.[7] The level of entitlements, stipulated by a national law, is not identical between the federal states but does not differ very much.

2.7 million people in 1.4 million households received social welfare payments at the end of year 2001, that is 3.3 per cent of the population. 1.6 million were in an age between 15 and 64 years, in which people tend to work, of which more than one third was younger than 30 years. Some of

7 As of July 1st, 2002 the standard payment to the head of a household in Western Germany averages 292 euro per month. The standard payment for the spouse is 80 per cent of this amount. Depending upon their age, children will receive 50 to 90 per cent of the payment made to the head of the household. Certain groups of individuals with special needs can receive additional support.

those were unable to work due to illness or handicaps, 110 000 were in training, 140 000 did work but work income was lower than welfare benefits, 700 000 were registered as unemployed. Those social welfare recipients registered as unemployed some received unemployment benefits as well; these benefits were supplemented because they were lower than welfare. The percentage of recipients in the population differs considerably between the federal states, varying between 1.7 per cent in Bavaria and 9.4 in Bremen. In the age group between 15 and 64, the average duration is 27 months. Recipients of welfare tend to have a low qualification. More than 40 per cent of all households receiving welfare are singles.
Expenditures for social welfare amount to 24 billion euro in 2001, that is 1.2 per cent in relation to GDP. In addition to the social welfare system, asylum seekers receive transfers according to a specific law; in 2001, their number was 430 000.

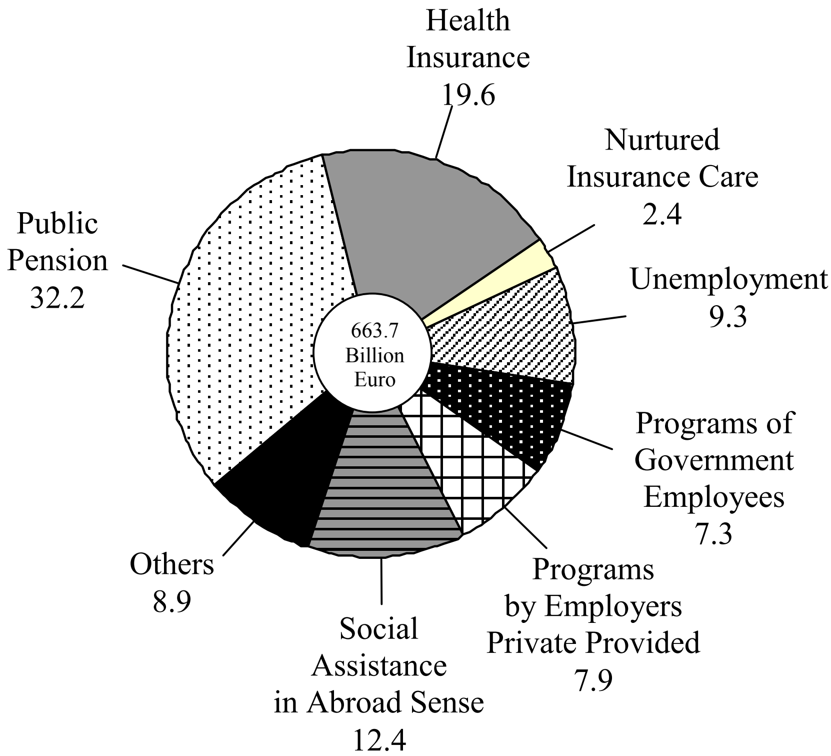
Whereas the standards for the social welfare system are defined nationally, the system is administered and financed by the municipalities. This corresponds to the subsidiarity principle. A new law to be passed in 2003 will change that organizational allocation for those recipients of social welfare who are able to work. They will now receive the unemployment benefit of type II above the social welfare level prevailing and somewhat reduced relative to the previous unemployment benefit of type II (*Arbeitslosenhilfe*). This is a new false incentive in Germany's social system. A task that is to be performed by the local level because the local community is better informed as well as directly concerned and affected by the expenditures is shifted to the national level, the labor office, including national financing. Moreover, since the unemployment benefit of type II is higher than the social welfare benefit, this change represents an expansion of the welfare state.

The Social Budget

Besides social security and social welfare there are other programs with a social dimension. These include programs for specific purposes such as support for juveniles (youth support) and a variety of transfers, among them child allowance, education allowance for families with children and housing subsidies for lower income groups (see "Social assistance in a broad sense"[8], Table 5.1 , Figure 5.1).

[8] I deliberately deviate from the official classification by the Economics and Labor Ministry, compare Table 88* in German Council of Economic Advisers, Annual Report 2002/03.

Figure 5.1: The social budget, expenditure side in per cent[a] of GDP, 2001



Source: German Council of Economic Advisers, Annual Report 2002, Table 66*

Youth support (*Jugendhilfe*) represents programs for young people and includes for instance extra-school educational activities, sport, leisure and social activities for younger people as well as family and youth support in specific cases. As a rule, transfers are made to public and private institutions that provide pedagogical and social services to the young. In specific cases, housing and income subsidies for young people who go to school and cannot live with their parents are provided. Moreover, contributions to social security are paid under specific circumstances. Youth support is mainly provided by the municipalities and amounts to 17 bill €, 0.8 per cent of GDP (2001).

Child allowance (*Kindergeld* or burden sharing for families with children) represents a subsidy to families with children. For each child, an amount of 5 808 euro can be deducted from the taxable income of a married couple; the amount is 2 904 euro for a single parent. If taxable income is low and the yearly tax deduction yields a low payment, then a transfer of 154 euro for every first, second or third child and 179 euro for every additional child is paid. The child allowance of 2 904 euro extends to children up to 16 years, and to 21 if they are unemployed. The allowance also applies children in education and training up to 27 years if they earn less than 7 188 euros (2003). This program requires 34.5 bill euro or 1.6 per cent of GDP (2002).

Education allowance (*Erziehungsgeld*) is provided to families in order to offer them the possibility that one parent can stay at home and dedicate all her or his efforts to the upbringing of the child; it amounts to 307 euro per month for two years of absence from work or 460 euros for one year. An income threshold reduces the allowance. This threshold is differentiated according to the marital status and the number of children; it is higher for the first six months. For instance, for a couple with one child the income threshold lies at 51 130 euro per year; it is lower beginning with the seventh month. If the income is below the first threshold, the allowance will be paid for full two years. If it is higher, the allowance is reduced starting with the seventh month.[9] Some states pay an additional allowance. The program also is valid for refugees and persons to whom asylum has been granted. Expenditures total 4 bill euro (2001).

The education allowance not only means expenditures. It legally implies a leave of absence from work for a three year period, so that the existing work contract continues. This includes the entitlement to the return to the previous job. Since the couple has a choice about which will opt for the child allowance, either the husband or the wife can exercise the option to

[9] Income thresholds for education allowance, 2003:

	Months 1-6	From month 7 on
Single with one child	38 350	13 498
Married couple with one child	51 130	16 470
Per additional child	3 140	3 140

their respective employers. If the employer agrees, the leave of absence can be extended to eight years. Both parents have the right to part-time work during the three-year- period. After the period, both parents have the right to return to their pre-allowance working time.

A housing transfer for rent payment (*Wohngeld*) is provided depending on the size of the family and its income. In some cases, this transfer also includes heating subsidies. Housing subsidies amount to a range of 295 euro to 630 euro for a four-person family varying with the type of municipality as well as with the vintage and the kind of housing. For singles, the range is between 160 euro and 370 euro. The income limit stands at 1 830 and 830 euro per month respectively. Transfers are reduced with income. Housing transfers amount to 4.5 bill euro.

Taking these positions under the heading of social assistance in a broad sense and including social welfare of 26 bill euro, the expenditures amount to 84 bill euro or 4 per cent of GDP.

Table 5.1: The Social Budget, Type of Expenditures, bill euro, 2001

by Institutions		by Functions	
Public Insurance Scheme	**420,2**	**Old Age**	**250,5**
Statutory Pension Insurance	225,1	*Old Age*	241,9
Health Insurance	137,1	*Surviving Dependents Provisions*	8,5
Nurtured Care Insurance	16,8	**Health**	**227,6**
Accident Insurance	10,9	*Prevention/Rehabilitation*	12,3
Unemployment Insurance	64,9	*Sickness*	154,0
Social Assistance in a broad sense	**83,8**	**Work related accidents**	**13,3**
Social Assistance in a narrow sense	26,3	*Invalidity*	48,0
Youth Allowance	17,1	**Family**	**98,7**
Child Allowance	0,1	*Youth*	66,2
Education Allowance	3,9	*Matrimony*	28,0
Housing Benefits	4,5	*Pregnancy*	4,4
Family Allowance	31,9	**Employment**	**61,4**
Programs provided by private employers	**55,6**	**Professional Education**	**14,2**
Programs for government employees	**50,9**	**Mobility**	**12,2**
(including pensions)	34,6	*Unemployment*	35,0
Others	**51,5**	**Others**	**25,5**
Total Social Budget[a]	**663,7**	**Total Social Budget**[a]	**663,7**

[a] The difference between the sum total of Expenditures by Institutions and the presented Total Social Budget number results from non-consolidation of government contributions of some of the above categories

Source: Council of Economic Advisers, Annual Report 2002, Tables 66* and 67*

Other items of the social budget relate to pension programs for civil servants (governmental employees with an official status) including their old-age pension system (35 bill euro) as well as assistance to health costs. Yet, other items are programs provided by firms including wage payment during the first six weeks of illness (27 bill euro) and firm-sponsored pension systems (14 bill euro). The new pension law that became effective in 2002 favours the pensions of firms. They are not only granted the same treatment as the new voluntary capital-funded private insurance. In addition, contributions to this system of pensions are exempt from contributions to the public system, both for the employee and the employer. Thus, these firms' pensions receive a preferential treatment relative to the voluntary capital-funded system that is government-subsidized. It can be argued that this helps to promote the idea of private insurance. But since the firms' pension systems are typically a matter of wage negotiations, it can also be argued that the government intended to strengthen the position of trade unions by this type of pension.

All expenditures for social purposes are summarized in a "social budget", they amount to 663 billion euro or one third of GDP, actually 32 per cent. This includes expenditures of the social security system which make up 22.6 per cent of GDP in 2002 or 65 per cent of the social budget, the largest proportion arising from the pension system and health insurance (Figure 5.2). On the financing side of the social budget, contributions to the public system of 435 billion represent two third of the revenue of the system, tax-financed transfers make up one third (Table 5.2). Employers provide the larger part of contributions. The totals of the social budget on the expenditure side and the revenue side are not identical because entries of expenditures and revenues for a specific purpose may differ in time.[10] All the systems are interdependent in many ways.[11]

Table 5.2: The financing side of the social security system in bill euro, 2001v

Contributions to social security		408
- of insured	176	
- of employers	232	
Transfers from the public budget		249
Other revenues		19
Social Budget		676

Source: Council of Economic Advisers, Annual Report 2002/03, Table 68*

[10] For instance transfers from the European Union. Note that some of the categories are not consolidated.

[11] It would go beyond the framework of this book to portray the flows between the different systems. For instance, unemployment insurance pays contributions to the health insurance and old-age insurance for the unemployed.

Expansion of the Welfare State

There has been a major expansion of the German welfare state in the 1970s. Entitlements were defined more generously.

In the pension system, the reform of 1972 raised the pension level relative to the net wage from 60 per cent in the 1960s in several steps to 70 per cent. A flexible age limit was introduced that allowed the insured to retire at 63, i.e. two years earlier, without allocating the costs of earlier retirement to them on an actuarial basis. Another new benefit was a minimum pension corresponding to a hypothetical minimum life income. These expansions in benefits were only possible by considerably loosening the budget constraint of the pension system in 1969 and by reducing the role of capital as a reserve. Up to 1969, it was required that the expenditures for a financing period of a decade were financed and that at the end of the financing decade, the reserve of the system had to amount to last year's expenditures. This requirement was given up in 1969. The new restraint for a projection period of fifteen years was that reserves in three consecutive years should not be lower than the expenditures of three months (Schewe 1975)[12]. When this new rule became effective, pensions in the projections were at first influenced by the low increase in labor income, whereas revenues were distorted by inflationary increases in wages. Thus, there was a rosy picture. Today, the reserve requirement is down to half a month' expenditure. With the benefit of hindsight, loosening the reserve requirements was an irresponsible decision when sustainability of the system and the interest of future generations are taken into consideration.

Already in the reform of the pension system in 1957, sustainability was pushed into the background. The capital fund that amounted to more than one year of expenditures was given up so that pensions could be raised considerably. The claims-backing approach (*Anwartschaftsdeckungsverfahren*) by which claims where backed by some type of fund or of accumulated contributions was substituted by the period-backing approach (*Abschnittdeckungsverfahren*) by which a financing constraint was introduced for a financing decade as described above. The

[12] Schewe, D., Nordhorn K., and Hermsen,K.-W. (1975), Übersicht über die soziale Sicherung, Hrsg. Der Bundesminister für Arbeit und Sozialordnung, 9. Ed., January.

system was moved away from individual claims.[13] This allowed Adenauer to win the 1957 elections. Since 1959, pensions were annually adjusted to economic development.

Since 1992, the adjustment of pensions was changed from a link to the gross wage to the net wage the reason being that the reference to the gross wage could no longer be afforded in a situation when the income tax as well as social security contributions were raised because otherwise pensions would have increased with a higher rate, thus violating the financing restraint. Germany was in such a situation due to unification in the early 1990s. But for a similar reason the link to the net wage is inadequate in a situation when taxes are reduced in the late 1990s, because then pensions are again raised with a higher rate and financing problems may arise. Indeed, in 2001, the pension formula was changed again into a modified net wage formula.

Early retirement was used in several laws to reduce labor supply without actuarial costs being properly assigned to the retired. Thus, the early

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[13] The Supreme Court upheld in a decision in 1980 that equivalence between contributions and benefits exists in the narrow sense that the rank order of benefits must be consistent with the rank order of contributions.

retirement law of 1984 (*Vorruhestandsgesetz*) effective until 1998 stipulated that employees who were 58 and older could go into early retirement in principle without a deduction from their pension; firms paid the retirees 65 per cent of their gross wage, but the government picked up 35 per cent of the expenditures of the firms plus the firms' contributions to social security for the early retires. This law was used by firms to send their older employees into retirement and thus to get a younger work force. Another law from 1988 and a new law passed in 1996 allowing part time work already described above had similar incentives for early retirement.

In health insurance, the insurance ceiling was raised in 1970 and adjustments were linked to economic development; the ceiling had been increased before several times. A sickness benefit for workers had already been introduced in 1957 and 1961 including a contribution from the employer. In 1970, workers received the same treatment as clerks; the employer has to pay the wage for six weeks of illness. A maternity benefit was newly set in 1965 and 1967. As already mentioned, nurtured care was introduced in 1995. In order to reduce the negative impact of this additional tax on labor, a religious holiday was given up and turned into a regular work day. The state of Saxony choose the holiday; contributions are paid by workers only.

Benefits out of unemployment insurance, i.e. benefits of type I (*Arbeitslosengeld*)[14], were increased in 1975 from 62.3 per cent to 68 per cent of the net wage for a married person; it is at 67 per cent since 1994. For a single, the benefits were raised from 42.8 per cent to 63 per cent; it is at 60 per cent since 1994. Simultaneously, a family allowance of twelve deutsche mark per week for each dependent family member was abandoned, but a child allowance was introduced. This meant an increase in benefits for the married unemployed. In the mid 1980s, the maximum duration of benefits was increased from one year to 32 months with the duration varying with age. Moreover, in 1985 a new law was introduced stipulating that the unemployed who are older than 58 years can receive unemployment benefits even if they no longer are available to the labor market. Unemployment benefits of type II (*Arbeitslosenhilfe*) was raised from 52.5 per cent to 58 per cent (today it is at 57 per cent). Unemployment benefits of type I and II were indexed to the net wage

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14 More precisely: the main component.

increase; they no longer are since 2003. In 1969, the Labor Office, the Bundesanstalt für Arbeit, was established; it was restructured in 2003.

The child allowance was extended to families with two children instead of three in 1961, benefits were again raised in 1965 and 1974. Social welfare was extended in 1974, both with respect to the benefits and the persons that are entitled. The law on the housing allowance, introduced in 1960 and extended in 1965, was extended again 1974. The law on social courts, special courts for social problems and a branch of Germany's administrative courts, from 1954 was revised in 1974. There was also a major law on the voting procedure in the self-administration of the social security system.

In addition, governmental employment increased by one million in the 1970s after it had increased in the 1960s by a million as well, starting out from a level of 2 million in 1960. It reached a maximum of 4.3 million in West Germany in 1992. Due to unification the number of government employees rose to 6.1 million (including part-time workers), and after privatizing telecommunication and the postal service as well as the railroads, consolidating the budget and scaling back government employment in Eastern Germany, the number is at 4.8 million in 2001. The share of government in GDP rose by 11 percentage points in the 1970s to 50 per cent of GDP (1981).

Taking all these developments together, a variety of measures especially in the 1970s extended the social dimension of the social market economy markedly[15]. In other words, this was the expansion of the welfare state. German politics handed out goodies. But this development was no free lunch. The contribution rate to social insurance rose from 26.5 per cent of the gross wage in 1970 to 42.1 per cent in 2003 reaching a maximum of 42.2 per cent in 1998 (Table 5.3). A newly introduced eco-tax prevented this trend from continuing, but in 2003 the contribution rate was at the same high level as in 1998, in spite of the 17.2 billion revenue of the eco tax in 2002. Without the eco-tax, the contribution rate would be two percentage points lower. According to the macroeconomic accounts, the state absorbs nearly half the gross wage income in from of income taxes and contributions to social security.

[15] See Schewe et al. (1975).

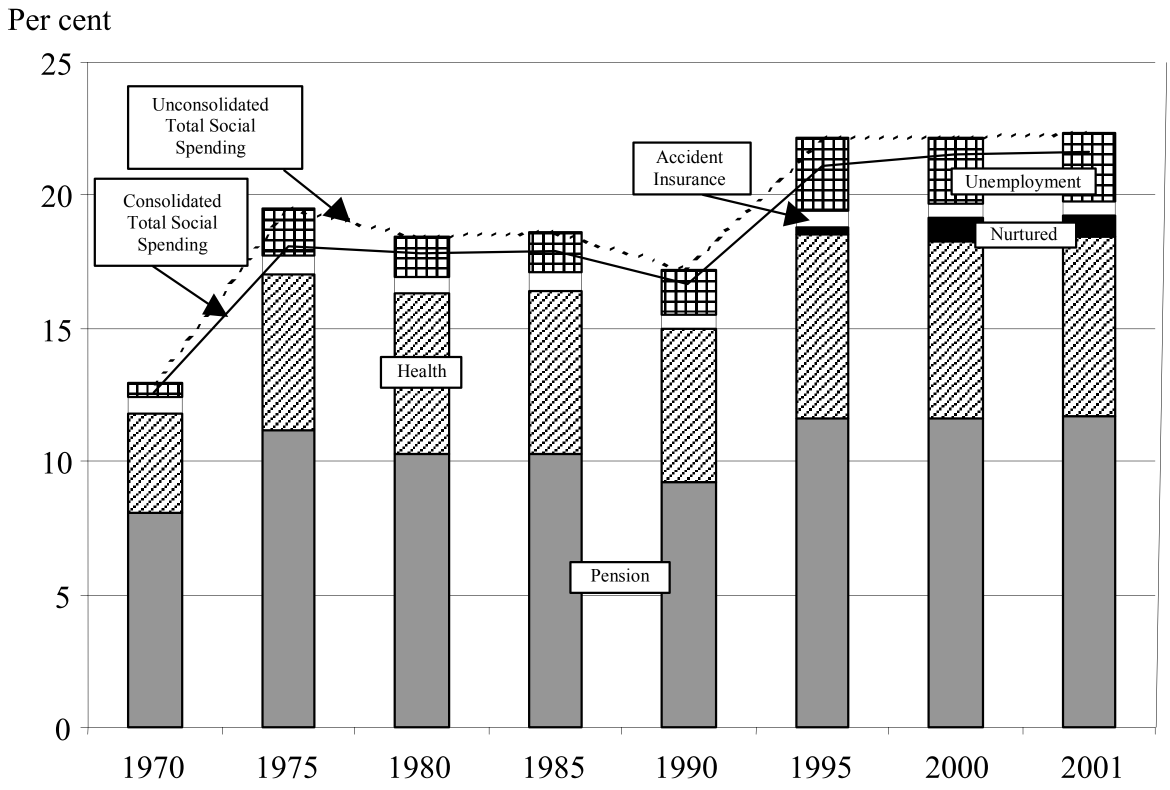
Table 5.3: Contributions to Social Security and Tax Load v

	Contribution Rates to Social Security in per cent of Gross Wage	Tax and Contributions to Social Security in per cent of Gross Wage Income[a]
1970	26.5	33.8
1980	32.4	41.4
1990	35.6	43.5
1998	42.2	48.6
2000	41.1	48.1
2001	40.9	47.1
2002	41.3	47.2
2003[b]	42.1	47.8

[a]Macroeconomic Accounts - [b]Forecast

The share of government spending for social security has risen from 12.6 per cent (1970) to 22.3 per cent in 2002 (Figure 5.2). The increase results from all branches of social security. Note that there are transfers between the branches, for instance unemployment insurance pays contributions to the pension system during unemployment. Therefore, the sum of all unconsolidated spending is higher than the consolidated spending of the social security system.

Figure 5.2. Components of Spending for Social Insurance in Relation to GDP, 1970-2001



Source for data: Statistisches Bundesamt and Council of Economic Advisers, Annual Report 2202/03

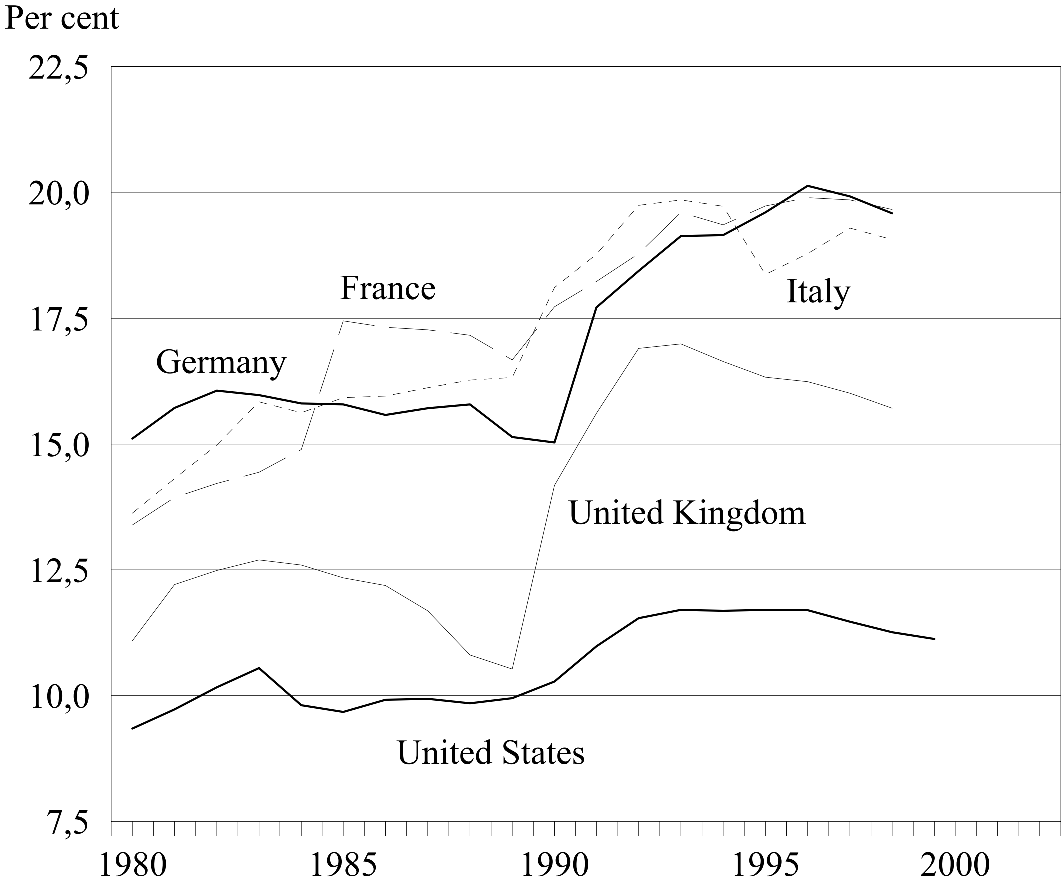
On the financing side, the share of the contributions has increased from 11.1 per cent to 17.5 per cent. The difference between expenditures and contributions is financed by transfers from the government budget (4 percentage points) and a deficit of the social security system

(0.1 percentage point)[16]. Whereas in 1970, the difference between the expenditure of social security in GDP (12.6) and the contribution share (11.1) was 1,5 percentage points only, it increased to 4.1 percentage points in 2001. v

In an international comparison, Germany has expenditures of a similarly high percentage relative to GDP for the three main social security branches (pensions, health, unemployment) as France and Italy. Each of these three countries spends more than the United Kingdom and nearly double the percentage relative to GDP than the United States.

[16] Council 2002 Table 34*.

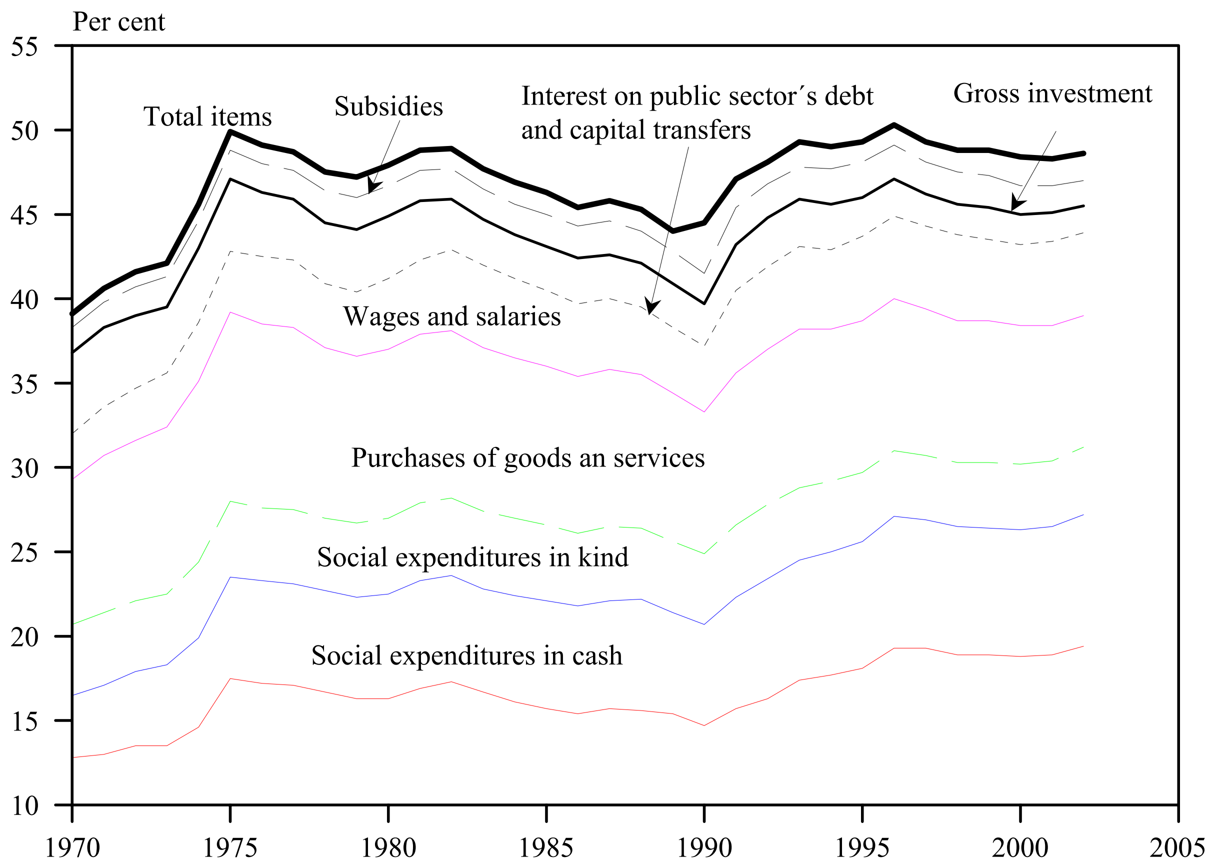
Figure 5.3: Expenditure for Pension, Health and Unemployment Insurance in different OECD countries in per cent of GDP, 1980- 2000



Source: OECD Social Expenditure Database

As a result of this development, the share of government in GDP rose from 39.1 per cent in 1970 to 48.8 per cent in 1981. It was reduced in the 1980s to 44.0 in 1989, but went up again in the 1990s reaching 50.3 per cent in 1996; it was at 48.6 per cent in 2002 (Figure 5.4). Social expenditures in cash and social expenditures in kind are the major reason for the increase in expenditures.

Figure 5.4: Government Share in GDP: The expenditure side, 1960-2002 [a]

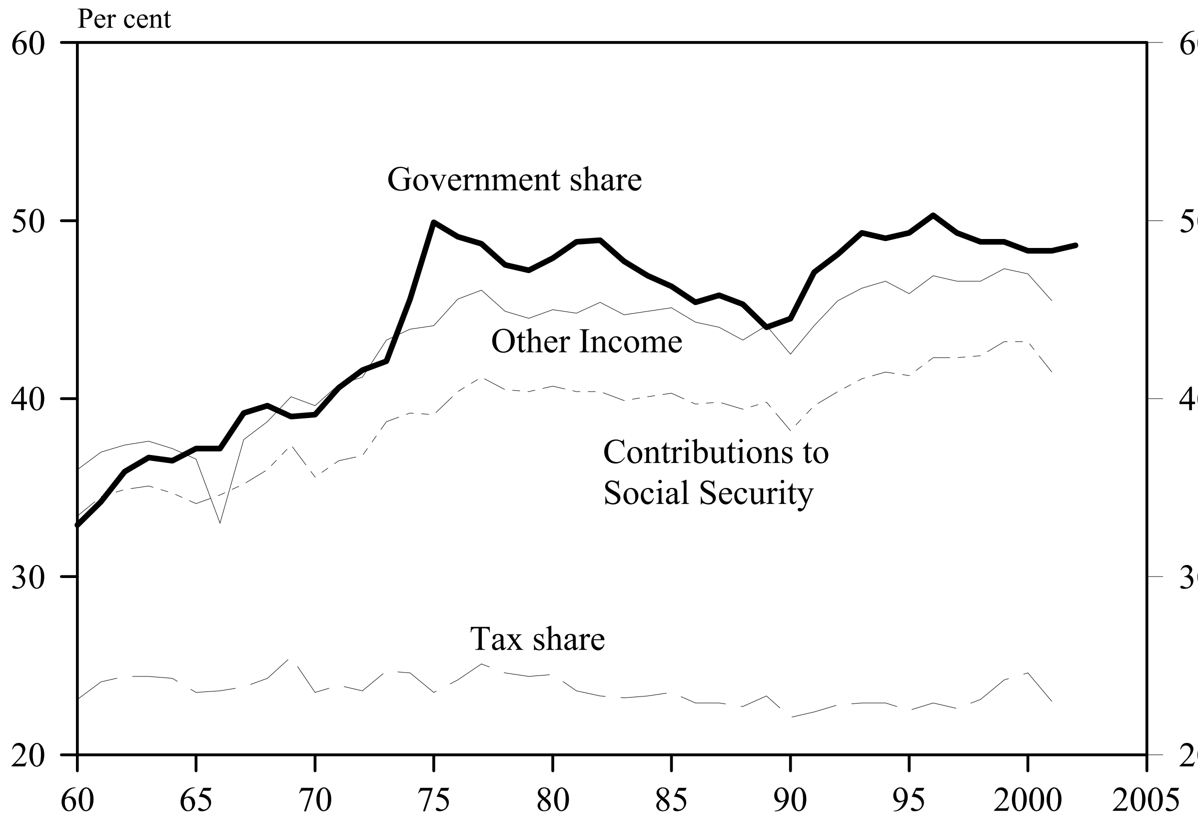


[a] In current prices, until 1990:West Germany.

Source: German Council of Economic Advisors, Annual Reports 1998/99 Table 33* and 2002/03, Table 34*.

The increase in government spending took already place in the1960s (Figure 5.5). Whereas the tax share in GDP remained nearly stable over forty years, contributions to social security are the driving force of the increase in expenditures. Thus, the increase in the government's share in GDP can be explained by the expansion of the social budget, i.e. by the rise of the welfare state.

Figure 5.5: Government Share in GDP: The financing side, 1960-2002[a]



[a] In current prices, until 1990:West Germany.

Source: German Council of Economic Advisors, Annual Reports 1998/99 Table 33* and 2002/03, Table 34*.

The expansion of the welfare state in the 1970s was partly accompanied by an increase in new debt. The budget deficit amounted to about 3 per cent of GDP in the second part of the 1970s. The consequences of the expansion of the welfare state became apparent many years later when the additional debt had to repaid. The expansion of governmental employment will be felt only in the coming years when the additionally employed civil servants will retire and receive their pensions from the tax revenue of today.

The expansion of the welfare system took place when in the 1970s the politicians still were used to the high real growth rates of labor productivity of the 1950s and the 1960s of 7 and 5 per cent respectively, but when these high rates of labor productivity could no longer be sustained. Germany’s catching up process was over, and the two oil shocks had given a blow to the German economy. Whereas the rate of increase of around 4 per cent in the 1970s was still sizable, the growth rate of labor productivity declined to a little bit over 2 per cent since 1980, and to even less – namely 1.6 per cent - since 1995. Thus, the economic basis of the welfare state had changed at the moment its expansion took place.

The Distributive Impact of the Social Budget

The social budget and its main component, the social security system, can be considered as an important element of the social market economy. They provide social assistance but they cause opportunity costs. In the following sections we look at their impact.

An important aspect is that the social budget has implications on equity and income distribution. After all, the main motivation of social assistance are equity and distributional considerations. However, there is not a simple one-to-one relationship between the social budget and equity. In the context of social security and the social budget, equity can refer to four different aspects. A first one is the access to insurance benefits; this is distribution in kind. A second one is the distribution in the financing of insurance coverage; this is the distributional aspect of contributions. A third one is the distribution of income, i.e. the change between market income and post-distribution income; this is monetary distribution or distribution of purchasing power. A fourth one is the distribution in the access to other goods than insurance coverage, be they private, public or merit goods. This is distribution in kind in the form of access to goods in contrast to the access to insurance coverage. With respects to the policy instruments used, we can distinguish the distributional impact of the rules for social insurance including contributions, of tax-based transfer mechanisms, and of tax-subsidy mechanisms.

Social security provides insurance coverage against risks; it can be interpreted as giving access to risk coverage. For instance in health insurance, individuals are characterized by different health risks, and health insurance can be considered as risk sharing. Assume people are under a veil of ignorance considering their health condition in the future. Insurance then allows them to be protected against risks that they cannot cover individually. In a sense, health insurance has distributive aspects, but it is in essence an arrangement of risk allocation. [17]In the insurance against invalidity, risk allocation is taking place in a similar way. In other insurance branches, risk allocation is also present, but to a lesser extent. This holds for instance for unemployment insurance. Workers are exposed to the probability of being laid of, but they can influence that probability to a large extent, for instance by building up their human capital, increasing their effort or by moving to another region with better jobs. This means that the risk is more differentiated. Insurance providing income in old age has a strong element of precautionary saving and can therefore be considered to be more or less individualized.

The financing side of insurance brings in the distributional aspect more clearly. This is especially relevant when contributions are not linked to the risk covered but to the income of the insured as is the case in Germany. For instance, in health insurance, access to the coverage is identical for everyone, but contributions are proportional to income. Thus, there is a distributional impact beyond the pure risk sharing. In other branches of social security, there is some link between the access to the coverage and the level of contribution. In unemployment insurance for instance, contributions and benefits are coupled to wage income. In the old-age pension system, pensions are also somehow linked to contributions, albeit in a very lose way. It is typical for the existing social security system that it is only vaguely based on the equivalence principle which would require that contributions are proportional to the benefits of insurance coverage, i.e. that they are risk equivalent. Instead, contributions are as a rule defined in proportion to income. In other words, these systems contain strong

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17 In health insurance the risk cannot be individualized; the risk must be some average, for instance the average health risk of all insured or the health risk of a cohort.

distributional elements, especially by differentiating contributions according to income.

From this analysis it follows that it is difficult to specify the distributional impact of social security. One reason is that to define the measuring rod from which distributional effects can be determined is a complex issue. Theoretically, the frame of reference would be an insurance based on the actuarial equivalence. But since any insurance implies the sharing of risk and represents an allocation of risk not meaning distribution, the distributional impact is hard to be determined. We have encountered this argument already, when the tax or contribution wedge of social security was determined in chapter 4. The other reason is that we simply do not have sufficient data. Thus, we unfortunately have no empirical evidence of the magnitude of the distributional dimension of these systems.

Other aspects of the social budget, such as social welfare, unemployment-benefits of type II, youth support, child and housing allowances are tax-based transfer mechanisms. In these cases, the government provides an income transfer to households; the transfer is financed by taxes or is implicitly done by tax allowances. Both the distributional effect of the expenditures side of transfers and of the financing side of taxes and the overall effect show up in the distribution of income. Analysis of income distribution before and after government activity in the socio-economic panel, a panel of 7 200 households with 17 300 individuals, shows that net income accounting for government activity including transfers is more equal than pre-distribution income; its has a lower Gini-coefficient.[18] Although in this realm, distributional effects can be clearly defined as a change in the market income distribution from government activity, we again have no unquestionable knowledge of the distributional impact of this type of government activity because the effects are not well known in detail.

The social budget does not include all distributive activities of the government. This holds for taxation and the tax-subsidy mechanism. Thus, the choice of tax rates and the definition of the tax base including tax allowances for the income tax have a distributive impact. Similarly, different rates of the value added tax for different categories of products have implications for income distribution. For instance, lower rates apply to foodstuffs. There is no value added tax for housing rents that absorb an over-proportional part of the income of low-income groups. Moreover,

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[18] 0.2777 versus of 0.4549 in 2000, Council of Economic Advisers, Annual Report 2002, Table 68.

subsidies very often are motivated by social considerations, for instance for the construction of housing for lower income groups, for the public transport system or for sectors with adjustment problems. They may serve to keep labor income at a higher level, for instance by covering production costs, they may keep domestic firms competitive to international competition. Subsidies may also be used to reduce product prices so that consumers can afford these goods more easily.

The social budget also includes items that cannot be shelved under the heading "distribution". Thus, the pensions to civil servants can be interpreted as part of the wages that the government has to pay with the specifics that the wage is paid in a later stage of life for work already done.

Moreover, government expenditures may *de facto* be directed towards specific groups of society. These groups have a preferential access to the use of goods. For instance, government expenditures for the public university system favor those families who tend to send their children to the university. These are not worker's households. It has been shown that only 14 per cent of children from worker's households go the university, whereas workers contribute 33 per cent to tax revenue[19]. Apparently, expenditures for universities have a regressive distribution effect instead of an intended redistribution effect.

The Impact on the Economic Base

The flip side of the coin of social protection are unfavorable allocation effects of the social security system.

Moral Hazard. Any insurance, whether privately organized or public, can generate moral hazard effects. In technical terms, moral hazard involves a behavior of the insured not to undertake measures to reduce the probability of an insurance damage to arise. This is not to say that the insured is deliberate or negligent. He simply has a low incentive to prevent the insurance damage. This problem arises in cases where the insurer cannot observe or control the behavior of the insured. It becomes especially relevant when the risks covered cannot be clearly specified ex-ante, when in addition to risk sharing other aspects such as distribution dominate as is

[19] German Council of Economic Advisers, Annual Report 1998, p. 252.

the case in with the public social security system and when there is no restraining incentive for the individual in his demand for coverage.

Beyond these technical considerations, there is a moral hazard problem on a higher level, namely for society. People rely on being protected against the risk by the governmental systems, and their incentive to prevent the insurance damage is underdeveloped. Since the benefits provided are not related the contributions paid, insurance coverage has the property of a semi-free good so that it is overused like the commons in the middle ages. The individual does not receive a price signal for the scarcity of the good, and over-exploitation is the consequence. Moreover, the supply is determined in the political process, and the majority of beneficiaries can dominate the contributors if the beneficiaries represent the majority in voting and if financing can be dissipated through general taxation. In addition, the policy maker has an incentive to extend the benefits if the beneficiaries are his voters. There is a *clientele* for the extension of the program (Lindbeck et al 1994, Saint-Paul 2000). People getting used to the system take it for granted and eventually increase their demand on the government. A further aspect is that the courts will require equal treatment, which is another mechanism by which favorable arrangements are extended. Quite a few decisions of the Federal Social Court as well as of the Supreme Court go into this direction. Thus, there is an inherent tendency of the system to extend itself, hence the expansion of the welfare state. Eventually, the cost of social absorption becomes uncontrollable.

Wrong incentive effects for the labor market. As already discussed in chapter 4, the high marginal tax and contribution rate for the social security system on income from labor of 58 per cent of gross labor income for the married average wage earner and 67 per cent for the single earner, also with an average income, represent wrong incentives for work effort as well as for human capital accumulation of the work force. Besides, it is an invitation to move to the underground economy. It is also in inducement for high-skilled labor to take residence in lower-tax places such as London and for firms to motivate their location decisions accordingly, a relevant phenomenon for the service sectors (banking and insurance) and for research.[20] Moreover, from the point of view of firms, financing social security acts like a tax on labor reducing the effective demand for labor.

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[20] This argument does not apply to people above the insurance ceiling.

Additionally, the benefits of the social security system define a reservation wage that influences search behavior of the unemployed, the supply of labor and the functioning of the labor market in the lower segment.

Looking at the impact on the supply side and the demand side of the labor market, the existing arrangement negatively affects employment and is thus an important reason for unemployment.

The negative impact on growth dynamics. Social security and the social budget affect resource allocation and growth negatively. There is a welfare loss if a more efficient form of insurance could provide the risk coverage. In addition, there is a trade off between social protection and growth. The production potential of the economy could be higher with a lower level of the social budget; the economy could be on a higher growth path. Raising contributions for social security and the social budget and financing part of the welfare state by taxes has negative effects on work effort and on investment as well. This in turn has negative implications on the growth potential of the economy. Moreover, putting a tax on labor and not fully using labor as an important resource lowers the growth dynamics of the economy.

The limits of financing

Besides the negative incidence on moral hazard behavior, unemployment and growth, another issue is that the social welfare system has reached its financing limits.

Actual financial difficulties. After the German election of 2002, the government took a variety of stop-go measures such as reducing the reserve of the pay-as-you go pension system which amounted to 0.8 months to 0.5 months (in 2001 it had already been reduced from one month). The contribution rate to the old-age pension system had to be increased from 19.1 per cent of the gross wage to 19.5 per cent. The contribution ceiling for the pay-as-you-go system had to be raised; this automatically increased the insurance ceiling of the public health insurance limiting the exit option from the mandatory public health insurance to private insurance. These ad hoc measures indicate that the social security system clearly is in a financing calamity.

The limits of financing in an ageing society. The financing issue becomes even more pressing in an ageing society. Germany will be severely affected by the ageing of its population, more so than France, the UK and the US. The average age (median of the population) will increase from 39.8 years (1999) to 48.6 years in 2050 assuming an annual net immigration of 200 000 persons. In such a scenario, there will be quite a pressure on the expenditure side of social security; the system will not be sustainable in the future.

Searching for New Sources of Financing. A way out of this dilemma is seen by some in new sources of financing by broadening the group who contributes and by widening the contribution base. One of the lines followed is to enlarge the group of those who have to contribute mandatorily in the hope to increase the financial means available, for instance to include the group of the self-employed. This, however, forces more people into the governmental system who will claim benefits in the future. What is more important: It means reducing the chance for a voluntary privately organized system. For instance in old-age insurance, individual retirement saving then becomes less important. Adjusting the insurance and contribution ceiling with the rise of income has occurred already in the past. If it keeps in line with the increase in labor income it does not crowd out the private sector and thus does not restrain the option to a private solution. It then keeps and protects the *status quo*. If these ceilings are raised abruptly as in 2003, the exit option to move to the private sector, as far as it exists, is restricted. This broadening approach has the disadvantage that it squeezes private solutions so that eventually a society unlearns how the market alternative to the public system looks like.

Another approach of broadening the contribution base is seen in including non-labor income, for instance capital income, in the contribution base. Whereas it will be argued later that it is indeed a promising approach to uncouple social insurance from the work contract, this is inappropriate without a system change. Broadening the contribution base would increase the distributional dimension of social insurance; the existing wrong incentives of the system and the ensuing distortions would be magnified. It would be a move in the wrong direction. Generating additional revenue from a broader base does not solve the core of the problem.

Raising other taxes or increasing general taxation in order to finance social security creates tax wedges somewhere else in the economy and establishes new distortions. Germany has introduced an eco tax in order to reduce the contribution rate for the pension system. It has been argued that there is a double dividend in the sense that the tax raises revenue for the pay-as-you go pension system and at the same time improves environmental quality. I am extremely sceptical about this argument

Increasing the rates of the value added tax in order to raise revenue for social security has its own negative effects. It therefore represents a larger distortion of incentives and it implies a larger dead weight loss if the given level of benefits is kept up. It induces market participants to move to the shadow economy, a phenomenon especially relevant in construction, in house repair and the crafts. Moreover, it reduces purchasing power.

The overwhelming argument against additional taxes, however, is that this approach does not go to the heart of the problem. Tax financing weakens the links between contributions and benefits in the pension system. It does not change the false incentive effects and keeps the actual system going for another while, thus preventing a real reform of the system.

Making the inter-temporal financing restraint explicit. There is no mechanism in the present system which guarantees that an inter-temporal budget restraint of the social security system is satisfied, i.e. there is no arrangement which brings future expenditures in line with future revenue. Thus, the long-run impact of entitlements as they exist today is not taken into consideration. A way out of this situation is to make the implicit debt of the system explicit and to show to the public and to the political decision makers the system's impact for future generations. Intergeneration accounts have been proposed to document the burden for future generations.

To explicitly consider the existing debt in an inter-temporal budget restraint, is, however, not sufficient to bring about a solution to the pension crisis. It would only be an informational instrument, albeit an important one. A more promising approach is to give the inter-temporal budget constraint some teeth. For instance such a constraint would have to specify that the stream of future expenditures must be in line with the stream of future contributions. In more formal terms, the present value of all future benefits should not exceed the present value of revenues. If this condition is violated, a mechanism must be established that prevents an excessive rise of the implicit debt. This means that the system has to adjust its benefits in accordance with the inter-temporal budget restraint. The systematic task is to find a formula that gives expression to the inter-temporal financing restraint. This can be accomplished by introducing, for instance, a demographic factor for life expectancy into the pension formula thus lowering the increase in pensions in an ageing population.

Alternatively, a „generation factor“ specific to each cohort can be applied so that reductions only apply to new cohorts of pensioners. By both measures, the benefit level of the pay-as-you-go system is reduced.

A simple law specifying the inter-temporal budget constraint would not be sufficient to provide a credible restriction; it can be changed too easily with a simple majority. Thus, we would need a constitutional rule, which would protect future generations and limit the benefits of today’s pensioners taking into account that the young generation has to accumulate private entitlements in capital-funded system in addition to financing the pay-as-you-go system.

Redefining the Risks

The increase of the expenditures in all the branches of the social security system, especially in health care, has been a concern of politics in the past. In health, administrative measures like putting a cap on the contribution rates have been taken to control the cost increase. Another measure in health care was to cap the total amount of expenditures going to all physicians and to apply a credit point system by which payment to each individual physician was determined ex-post. By such measures the cost increase was halted for a year or two, but eventually the increase resumed. Moreover, these stop-go measures implied unwanted incentive effects and distortions. It can be expected that administrative measures cannot control the cost increases. One therefore has to look for other approaches.

Large risks versus small risks. A major solution in reforming social security in Germany consists in distinguishing what are large risks and what are small risks for the individual. Large risks are those that cannot be borne by the individual, an example being a longer illness or permanent disability. These risks have to be taken over by society. Small risks like having no income in the first days of unemployment or illness, however, can be borne by nearly every one, for instance by precautionary savings to cover the small risks. Only if the income of an individual is too low to permit individual savings, the government has to step in. This distinction must be at the heart of reforming the welfare state. To cover large risks by social security and to individualize the small risks should be the guiding principle.

The distinction between large and small risks has to be delineated for the different branches of the social welfare system. By doing so, one has to take into account the different dimensions of the allocation of the core risk in the different branches of social security and even the different dimensions of specific benefits in each of the branches. By such a distinction, the benefits of the social security system are newly defined. The insurance system then only applies to the core risks; peripheral risks are covered outside the public system by private insurance. For instance, in health insurance, benefits not directly linked to an illness may no longer be provided (contraception, dentistry, eyeglasses, private accidents, sport accidents). Along a similar line, the income risk during illness may be covered by a private insurance. However, the coverage of the health risk cannot be completely individualized. There must (some) risk and burden sharing for the core health risks. But even in health insurance, redistribution present in linking contributions to income can be shifted to the tax-transfer mechanism; this means that more equivalence is established in the social security systems. In the old-age pension system, the risk of not having an income in old age can be more or less individualized; consequently, benefits have to be linked the contribution. The governmental pay-as-you-go system can only cover part of the pensions. The other part has to be covered by the individuals and by a capital-funded private insurance.

Following this approach, mandatory contributions to social security can be reduced. This means a lower tax on labor and fewer distortions. The negative impact on the demand for labor and on growth can be meliorated. Moreover, the now apparent impossibility of financing the systems can be overcome. In addition, options for the individual are opened up. He can decide himself, whether he wants to be covered against small risks (and then is prepared to pay premia accordingly) or whether he chooses not to cover the small risks (and then can economize on the premia). For each individual, there is a strong incentive effect to bring benefits and premia in line. This means that the insurance coverage for small risks in the economy is now determined by the choices of all individuals and not by the political process.

The role of an income floor. In reducing the level of benefits in the pay-as-you-go system in order to make room for a funded system, the problem is that social welfare provides an income floor below which the benefits of a contribution-based pay-as-you-go system cannot fall. This implies that you cannot expect people to pay contributions for 45 years in their working life and then let them have only the same monthly benefits as if they were to receive welfare benefits. How relevant this is becomes apparent in comparing the level of pensions and of social security payments. Pensions amount to 70.3 per cent of the net wage in working life (in 2002); plans under discussion now are to reduce the net pension benefit to a lower relation. Social welfare payments make up roughly 44.2 percent of the lowest wage group in industry for singles; for a married couple (single earner household[21]) it is 58.9 percent, also relative to the lowest wage group in industry. Apparently, reducing the benefits of the pay-as-you-go system very quickly hits the bottom of welfare payments. Thus, restricting the pay-as-you-go system requires to rearrange the income floor provided by social welfare.

With an income floor of social welfare benefits being assumed as given there is only a limited space to lower the basic pension of the pay-as-you-go system. This restraint has become even more relevant after a basic pension for everyone as a lower floor for old age income was introduced into the public schemes in 2003. Such a basic pension is financed by general taxes. The motivation is to prevent „old age poverty“, especially for those who have not been regularly employed in their life time and have „broken“ biographies. The basic pension introduces an income floor in

[21] Couple without a child.

addition to means-tested social welfare benefits; this will the reform of the pension system more difficult and less likely.

Reducing the demands on the state. An important point in the reform of social security is that the demand on the state with respect to social security can no longer be maintained for those who are in the working age and who are physically able to work. As discussed in chapter 4, the incentive to move to the labor market have to be improved by letting recipients keep part of their welfare payment if they earn income in the market and by reducing the level of welfare payments for those who are able to work. This reduces the reservation wage and the minimum wage and is thus a precondition for establishing a better functioning labor market in its lower segment.

Taking distribution out of social security

The approach to redefine the risks that are covered by social security and to move to the equivalence principle wherever it is possible can be strengthened by taking redistribution completely out of the social security system and by shifting it to the tax-transfer mechanism. People with low income receive a transfer, for instance to pay the contributions to health insurance. Family support is then not undertaken in the form of lower contribution rates but by providing government aid to pay the contributions. Whereas distributional measures are now hidden in the five branches of social security and we do not know how much distribution there is in the actual system, a separation of insurance and distribution will make the redistributional dimension explicit. The advantages of this approach are: The equity target can be targeted better with a tax-transfer mechanism. The costs of financing become more apparent. And thus the social choice of the level of social protection will become more rational. A decentralized mechanism is established by which the financing restraiant is expressed to the individuals. he advantage of this approach is not only its transparency, it Wrong incentives and distortions are reduced.

Such an insurance concept would more or less automatically take contributions away from labor income as a base for payment. Insurance coverage would be an individual decision, albeit not in all branches of social insurance. People would tend to consider their total income as a determinant of insurance coverage.

Tabelle 4A-1: Contribution Rates of the Pension Scheme

Pension scheme for workers and employees[a]	Contribution rates as per cent of the income liable for contributions[b]
1891-1911	1.7
1912-1616	2.1
1917-1923	2.6
1924	2.7
1925-1926	4.1
1927-1942	5.0
since July 1, 1942	5.6
since June 1,1949	10.0
since April 1, 1955	11.0
since March 1, 1957	14.0
since January 1, 1968	15.0
since January 1, 1969	16.0
since January 1, 1970	17.0
since January 1, 1973	18.0
1975	18.0
1980	18.0
1985	18.7/19.2
1990	18.7
1991	17.7
1995	18.6
1996	19.2
1997	20.3
1998	20.3
1999	19.5
2000	19.3
2001	19.1

[a]Between 1891-1942 the numbers for the pension system represent workers' pensions only. – [b]Contributions are for all years for employers and employees together and applicable from January 1st onwards with the exception of 1957 (March 1st onwards), 1983 (September 1st) and 1985 (18.7 until end of May, 19.2 from June 1st onwards.

Table 4A-2: Reserves in the German Social Security System[a]

Years	in bill Euro	in months
1975	22.0	7.4
1976	18.3	5.4
1977	13.0	3.3
1978	9.3	2.2
1979	8.4	1.9
1980	9.6	2.1
1981	11.1	2.4
1982	10.5	2.1
1983	7.7	1.5
1984	5.0	0.9
1985	5.7	1.0
1986	9.1	1.6
1987	10.8	1.8
1988	11.9	1.9
1989	13.2	2.0
1990	17.9	2.6
1991	21.9	2.6
1992	25.1	2.6
1993	38.7	1.9
1994	33.5	1.5
1995	22.0	0.9
1996	14.2	0.6
1997	14.3	0.6
1998	9.2	0.7
1999	13.6	1.0
2000	14.2	1.0
2001	13.8	0.9

[a]Note: Data for the time before 1991 only cover Western Germany.

Source: Council of Economic Advisors, Annual Report 02/03.

Table 4 A- 3: Transfers from the Federal Budget to the Pension System[a]

Year	In bill Euros	In per cent of expenditure
1950	0.3	18.7
1955	1.3	35.1
1960	2.1	23.0
1965	3.0	20.1
1970	3.7	15.0
1975	6.8	12.8
1980	10.8	15.4
1985	12.9	14.5
1990	15.2	14.3
1991[b]	19.6	15.2
1992	23.8	16.7
1993	25.4	15.6
1994	29.9	17.1
1995	30.4	16.2
1996	32.3	16.6
1997	35.2	17.8
1998	37.2	18.5
1999	34.6	16.9
2000	33.3	15.6
2001	33.8	15.4

[a] Both workers and employees pensions. - [b] Data for the time before 1991 only covers Western Germany.

Source: Council of Economic Advisors 02/03, Schewe (1975) and own calculations.