Long-term Care in Germany

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I. The Institutional Setting of Long-term Care

In legal terms, the "need for long-term care" (or "dependency") refers to those people who are – as a consequence of illness or disability – unable to perform the activities of daily living (ADLs) independently for an expected period of at least half a year.

Until the introduction of Long-term Care Insurance (LTCI) in 1994, there was no comprehensive public system for financing long-term care in Germany. Dependent people or their families had to pay for care services – when they used them at all – out of pocket, with only means-tested social assistance as the last resort for those who had exhausted their assets and could not otherwise afford the necessary formal care.[1] The LTCI Act of 1994 established public long-term care insurance and mandatory private long-term care insurance, which together cover almost the whole population. Members of the public health insurance system become members of the public LTCI scheme, and those who have private health insurance are obliged to buy private (mandatory) LTCI guaranteeing at least as much coverage as the public scheme does. Since all insurance benefits are capped, private co-payments remain important, and means-tested social assistance still plays a vital role, particularly in nursing home care, where about 30 percent of all residents still receive social assistance.[2]

Public LTCI follows the *pay-as-you-go principle*, while private mandatory LTCI is a partially funded scheme. Public LTCI is financed almost exclusively by *contributions*, which are income-related but not risk-related. In the case of those who are employed, employers and employees pay 50 percent each of the premiums,[3] while contributions for the unemployed are paid by unemployment insurance. Since 2004 Pensioners pay the whole contribution themselves. Contributions are calculated as 1.7 percent of gross earnings and accordingly retirement pensions up to an income ceiling of 3,562.50 Euro per month (2006 figure). Income from other sources such as assets or income from rent and leases is not considered in calculating contributions. The contribution rate can only be changed by an act of Parliament. From 2004 onwards, insured people aged 23 or older who have never been parents have to pay an *additional contribution rate* of 0.25 percent.

Public LTCI is administered by different *LTCI funds*. Since the benefits, as well as the contribution rate, are identical for all funds and all expenses are financed by the sum of all contributions – irrespective of which fund is responsible – there is no competition between these funds.

In contrast to the Japanese Long-term Care Insurance, in Germany, *entitlement* is independent of the age of the dependent person. However, almost 80 percent of all beneficiaries are 65 years old or older and more than 50 percent are at least 80 years old (own calculations based on information from the Department of Health for 2004). The entitlement to claim benefits is based on whether the individual needs help with carrying out at least two basic activities of daily living (bADLs) and one additional instrumental activity of daily living (iADLs) for an expected period of at least six months. Three *levels of dependency* are distinguished depending on how often assistance is needed and how long it takes a non-professional care-giver to help the dependent person (see Table 1).[4]

Table 1: Definition of Dependency

	Level I:	Level II	Level III
Need of care with basic ADLs	At least once a day with at least two bADL	At least thrice a day at different times of the day	Help must be available around the clock
Need of care with instrumental ADLs	More than once a week	More than once a week	More than once a week
Required time for help in total	At least 1.5 hours a day, with a least .75 hours for bADL	At least 3 hours a day with at least 2 hours for bADLs	At least 5 hours a day with at least 4 hours for bADLs

Source: § 15 SGB XI.

The LTCI benefits are set by law. Beneficiaries (and their relatives) may choose between different benefits and services. It is important to note that this *choice* is up to the beneficiaries and not to care managers, state agencies, or long-term care insurance funds. The LTCI benefits are for home care, day and night care, and nursing home care. People in *home care* can choose between in-kind benefits for community care and cash benefits. Cash benefits are given directly to the dependent person, who can choose to pass the cash on to a family carer. However, there is no obligation for the dependent person to do so, and the use of cash benefits is at the beneficiary's discretion – given that care-giving is guaranteed. Community care is provided by both non-profit and for-profit providers. Up to certain ceilings (see Table 2), their bills are covered by LTCI funds. Cash and in-kind benefits may be combined, i.e. if only x% of claims for in kind benefits are realized, 100-x% of the cash benefits claims are still available.

Table 2: Amount of LTCI Benefits (Major Types of Benefits)

in Euro per month	Home care		Day and night care	Nursing home care
Level	Cash benefits	In-kind benefits	In-kind benefits	In kind benefits
I – moderate	205	384	384	1,023
II – severe	410	921	921	1,279
III – severest	665	1,432	1,432	1,432
Special cases		1,918		1,688

Source: §§ 36-45 SGB XI.

Table 2 contains the respective amounts of money for the most important types of benefits as laid down in the Code Book regulating LTCI (*Sozialgesetzbuch, 11. Buch (SGB XI)*). As the table shows, in-kind benefits for home care are about twice as high as cash benefits; while day and night care is of equivalent value to in-kind benefits. In level I and II, benefits for nursing home care are higher than for home care. Only in level III benefits for all types of formal care are the same. The latter was aimed at preventing a shift towards nursing home care as a result of the introduction of LTCI.

If a family carer is on vacation, the LTCI will cover the expense of a professional carer for a period of up to four weeks – up to a ceiling of 1,432 Euro. This is a benefit in its own right but is weighted against other claims for home care. There is also a small grant for special aides, and the insurance funds offer courses for non-professional carers. LTCI funds pay the pension contributions of informal carers, who are also covered by accident insurance without having to pay contributions. In general, all benefits are capped or given as lump sums.

LTCI funds provide benefits that, in general, are not sufficient to cover the costs of formal care at home (see Rothgang, 2000) or in a nursing home. In a nursing home only care expenses are co-financed by LTCI funds up to a certain ceiling (see Table 2). As Table 3 reveals, LTCI benefits are even insufficient to cover average daily rates for care costs**.** Since residents have to pay for board and lodging (so-called "hotel costs") out-of-pocket, co-payments are quite substantial, particularly as an average monthly amount of about 376 € for investment costs is to be added. (Schneekloth 2006: 29). These "investment costs" cover the annuities resulting from building or modernizing nursing homes. They are partly (and decreasingly) financed by the provinces ("Laender"). Uncovered costs have to be paid by the nursing home residents themselves.

Table 3: Average Monthly Rates for Nursing Homes, LTCI Benefits, Co-payments in 2002

in €	(1)	(2)	(3) = (1) + (2)	(4)	(5) = (1) - (4)	(6) = (3) - (4)
Level of care	care costs	board and lodging	daily rate (investment excluded)	LTCI benefits	co-payments, care costs only	Co-payment, care and hotel costs
Level I	1,172	738	1,910	1,023	149	887
Level II	1,558	738	2,296	1,279	279	1,017
Level III	1,979	738	2,717	1,432	547	1,285

Source: Daily rates from the peak organization of the general local sickness funds (*AOK-Bundesverband*).

There are no regulations concerning *how benefits are adjusted* by the federal government. Until the time of writing, benefits have never been adjusted, not even for inflation, while prices for nursing home care, to give one example, have gone up by 10 to 15 percent. Consequently, the purchasing power of LTCI benefits has been declining.

Laender have the responsibility for financing *investments* in premises for long-term care services. Regulations vary greatly among the 16 provinces. Some Laender directly finance investments in nursing homes, while others only provide subsidies for dependent older people living in nursing homes who rely or would otherwise rely on social assistance (*Pflegewohngeld*). In order to help East Germany to "catch up" with the former West Germany, however, from 1996 to 2003 a special program was set up funding an investment worth up to about 500 million Euro a year in the former East Germany. The central government covered 80 percent of this amount as long as the respective region provided the remaining 20 percent share.

With respect to *regulation*, LTCI funds are the most important actors in the field. They are responsible for contracts with care providers (including admission to the market), prices (for in-kind care), and cash benefits. The Medical Review Board (*Medizinischer Dienst der Krankenversicherung* or MDK) perform the assessment to determine whether an individual is entitled to benefits. For private LTCI, Medicproof, a private company, carries out this task.

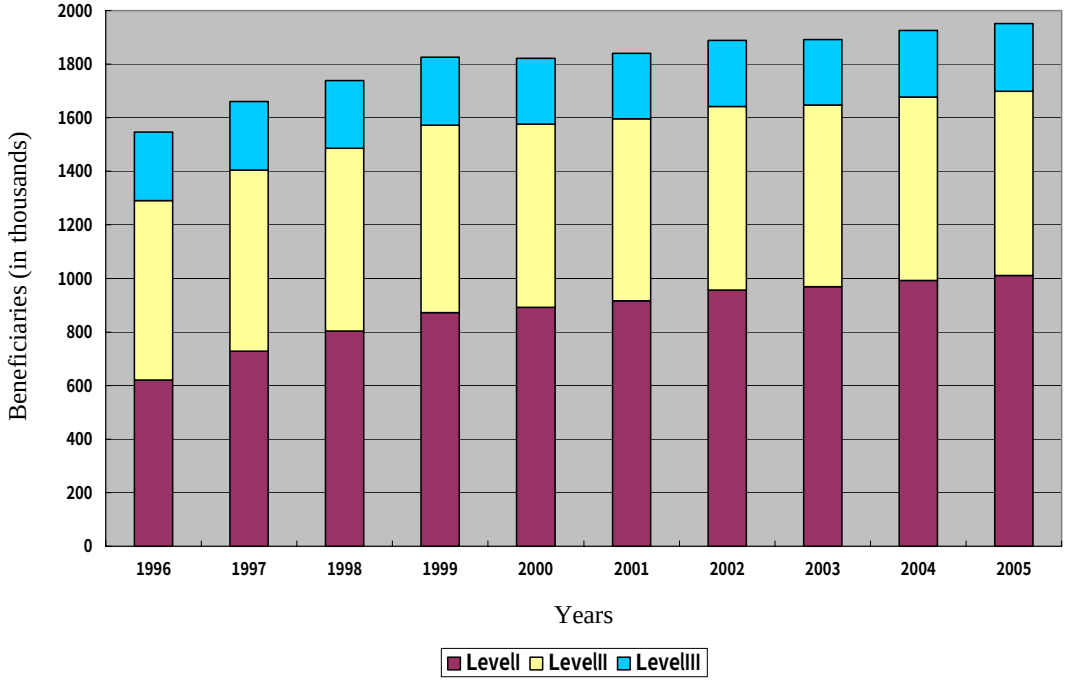
II. The Provision of Care

Families are the main providers of informal long-term care. Formal care is provided by public and private (profit and non-profit) care providers in private households (home care); day and night care centers and nursing homes. One of the innovations of the LTI Act is the beneficiary's opportunity to choose between different care arrangements and respective benefits. Therefore, it is interesting to take a close look at the development of these arrangements.

1. The Current Situation

Between 1997, the first year when the LTCI system was fully operating, and 2005, the *number of beneficiaries* increased by about 291 thousands, which equals about 36,000 per year on average. There has been a slight but steady growth of the number of beneficiaries, but no "explosion".

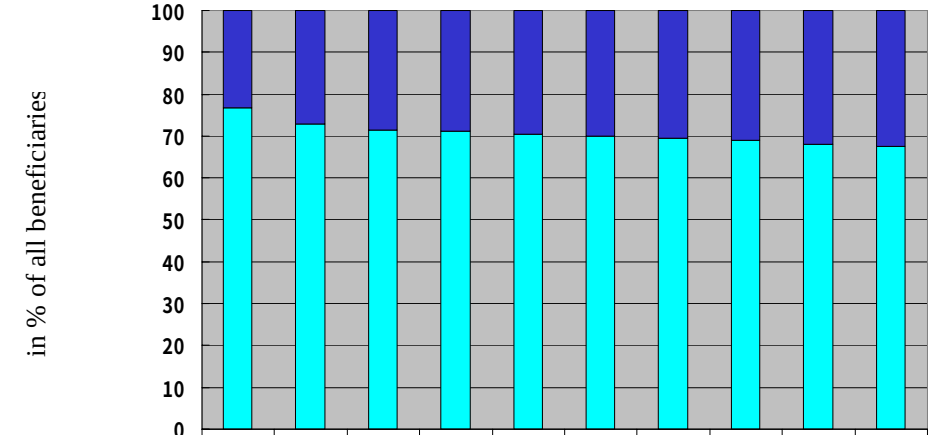
Figure 1: Number of public LTCI Beneficiaries



Source: Data from BMG (2006).

The highest growth rates occurred in the early years of the system when the population still had to get used to their claims. An annual growth rate of 2 percent was exceeded just once in the last six years (Figure 1). However, a gradual shift in care arrangements towards formal care is also contributing to raising expenditures (Figures 2 and 3).

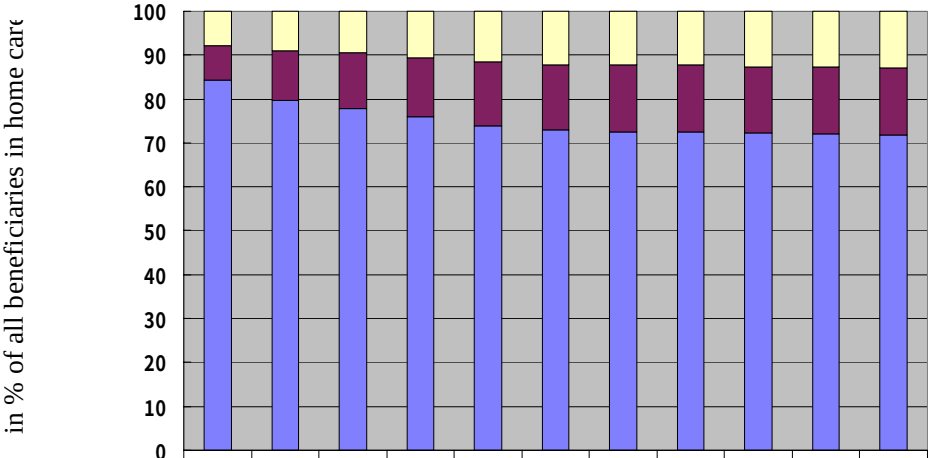
Figure 2: Share of Dependent Persons in Home Care and Nursing Home Care



	1996 (last 6mont	1997	1998	1999	2000	2001	2002	2003	2004	2005
nursing home care	23.3	27.1	28.7	28.9	29.6	30.1	30.5	31.0	32.1	32.5
home care	76.7	72.9	71.3	71.1	70.4	69.9	69.5	69.0	67.9	67.5

Source: Data from BMG (2006).

Figure 3: Beneficiaries in Home Care



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
in kind benefits	7.9	8.9	9.6	10.6	11.5	12.2	12.2	12.3	12.6	12.7	13.0
combination	7.9	11.4	12.6	13.5	14.5	14.8	15.2	15.2	15.1	15.3	15.3
cash benefits	84.3	79.6	77.8	75.9	74.0	73.0	72.6	72.5	72.2	72.0	71.8

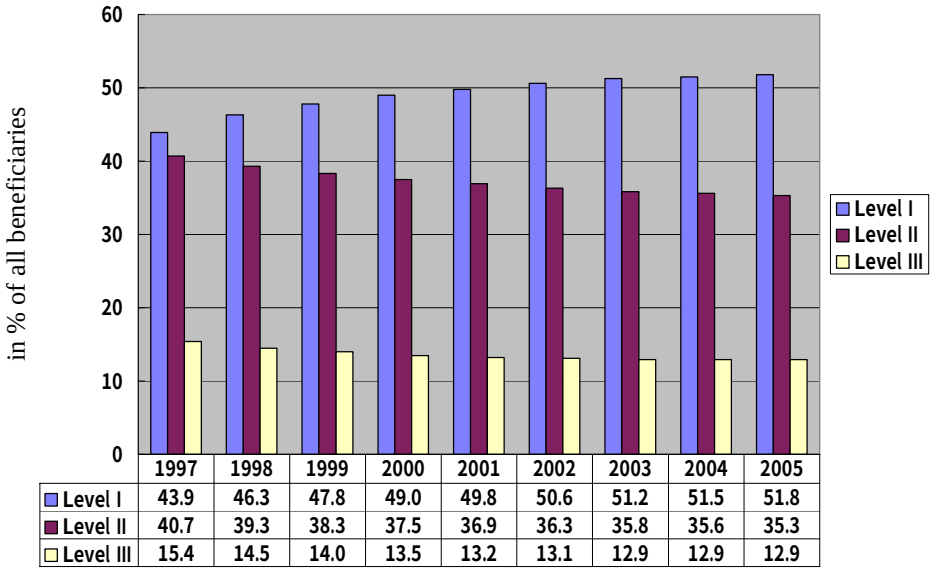
Source: Data from BMG (2006).

There is a clear trend towards formal care in Germany over time. In public long-term care from 1997 to 2005 the share of dependent people in nursing home care has increased from 27.1 to 32.5 percent (Figure 2). At the same time, in home care the share of those who choose cash benefits has decreased from about 78 to 72 percent (figure 3). So, while about half of all dependent people are still cared for without the involvement of professional carers, over time this quota has fallen from 56.7 to 48.5. This drop of 8.2 percentage points clearly indicates the *growing involvement of formal care services* in care-giving.

With respect to the *levels of dependency,* Figure 4 reveals that the share of dependent people who fall under level I is growing, whereas the share in both level II and level III has declined. The same picture holds for those who are newly classified. The share of those assessed in level I has been growing from 55.1% in 1997 to 66.2% in 2004 (own calculation based on MDS 2006: 10). Thus, the growing share of people in

level one is not an effect of distinct survivor rates according to levels of dependency. Since the share of the very old (those aged 75 and over) among the beneficiaries has not decreased but rather has slightly increased, this is likely to be the effect of tighter assessments by the MDK and tighter assessment rules for level III based on court jurisdictions.

Figure 4: LTCI beneficiaries according to level of dependency

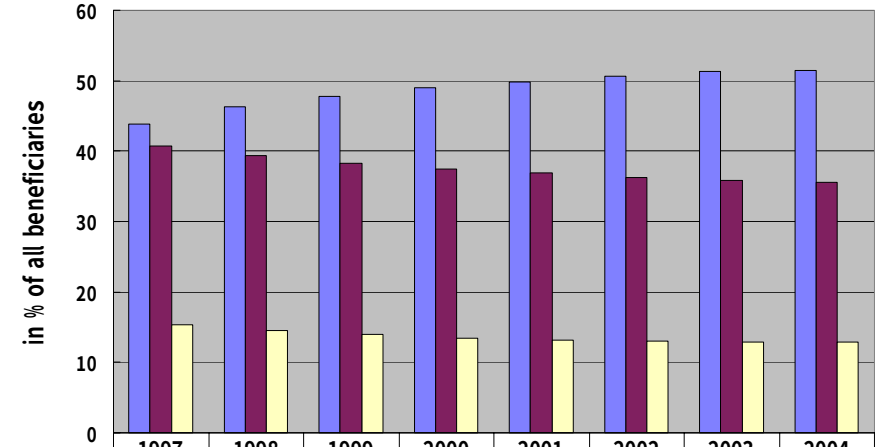


	1997	1998	1999	2000	2001	2002	2003	2004	2005
Level I	43.9	46.3	47.8	49.0	49.8	50.6	51.2	51.5	51.8
Level II	40.7	39.3	38.3	37.5	36.9	36.3	35.8	35.6	35.3
Level III	15.4	14.5	14.0	13.5	13.2	13.1	12.9	12.9	12.9

Source: Data from BMG (2006).

Even more puzzling is the growing share of beneficiaries in nursing home care classified in level I (Figure 5). The LTCI Act states a preference for home care over nursing home care. Correspondingly, benefits for nursing home care must only be granted if home care is "impossible," which was thought to be the case for dependent people in level III and partly in level II, but only rarely in level I. Thus, it was expected that there would only be a small and decreasing share of moderately dependent people in nursing homes.

Figure5: LTCI beneficiaries according to level of dependency



	1997	1998	1999	2000	2001	2002	2003	2004
Level I	43.9	46.3	47.8	49	49.8	50.6	51.2	51.5
Level II	40.7	39.3	38.3	37.5	36.9	36.3	35.8	35.6
Level III	15.4	14.5	14	13.5	13.2	13.1	12.9	12.9

Source: Data from BMG (2006).

As the choice of a certain care arrangement dependents on several facts the reasons for the shifts in dependency levels among dependent person in nursing homes are also multiple. One reason, however, is the benefit structure. For those in level I, benefits for nursing home care are much higher than for home care (Table 2), while co-payments on the other hand are smaller than for those in levels II or III (Table 3). Thus, there are incentives for beneficiaries who may not always need that degree of care to choose nursing home care, particularly for those in level I. As these incentives become common knowledge the observed shift in structure might be expected.

Three-quarters of all main carers are female. Table 4 provides an overview of the *relation of family carers to the dependent people they care for*. As the table shows, intra-generational care by spouses or partners has grown over the last decade from 37 percent in 1991 to 28 percent in 2002, while the share of other groups among main carers on the other hand is fairly stable, with the exception of sons whose share among carers has more than trippled. Today, 42 percent of carers are sons, daughters or daughters-in-law of the dependent elderly, which highlights the importance of inter-generational care and also the vulnerability of the care system to the fact that the ratio of children to the dependent elderly is declining.

Table 4: Main Carer of Dependent People in Private Households

Share in %	1991	1998	2002	Change 1991-2002
Sex				
Male	17	20	27	+ 10
Female	83	80	73	- 10
Relation of Carer to Dependent Person				
Husband or (Male) Partner	24	20	28	- 9
Wife or (Female) Partner	13	12		
Mother	14	11	12	- 2
Father	0	2	2	+ 2
Daughter	26	23	26	0
Son	3	5	10	+ 7
Daughter-in-law	9	10	6	- 3
Son-in-law	1	0		- 1
Other Relative	6	10	9	+ 3
Neighbor / Friends	4	7	8	+ 4
Residence of Main Carer				
Co-resident	78	73	62	- 16
Separate Household	22	27	38	+ 16

Sources: Schneekloth and Potthoff, 1993, 126; Schneekloth and Mueller, 2000, 52; and Schneekloth and Leven, 2003: 19.

With respect to formal care, the LTCI Act triggered an *expansion of capacity.* In both nursing home care and home care, the number of providers doubled between 1992 and 1997. But these official figures should not be over-interpreted. As residential homes for the elderly were re-founded as nursing homes and as former informal help systems (such as those organized by churches) transformed themselves into formal care providers, there are no valid time-series data showing the exact expansion of capacity before and after the LTCI Act. Table 5, therefore, concentrates on the development from 1999 onwards, for which reliable data exists. While the number of providers and the overall capacity of nursing home care (measured by the number of beds) are still growing an even increasing pace, the picture is more complex for home care. The number of providers grew slightly between 1991 and 2005, while the number of employees grew considerably. Obviously, this must reflect a process of concentration. Table 5 also reveals

changes in staff structure as the number of part-time employees has grown while the number of full-time employees even decreased. Overall, from 1999 to 2005 – which is after the end of the initial boom in the establishment of new providers – the capacity in home care has still been growing, but at moderate pace.

Table 5: The Capacity of the Formal Care Sector

	Home Care			Nursing Home Care	
	Number of Providers	Employees	Full-time Employees	Number of Providers	Number of Beds
1999	10,820	183,782	56,914	8,859	645,456
2001	10,594	189,567	57,524	9,165	674,292
2003	10,619	200,897	57,510	9,743	713,195
2005	10,977	214,307	56,354	10,424	757,186
1999-2001	-2.1	3.1	1.1	3.5	4.5
2001-2003	0.2	6.0	0.0	6.3	5.8
2003-2005	3,4	6,7	-2,0	7,0	6,2
1999-2005	1,5	16,6	-1,0	17,7	17,3

Source: Data from Federal Bureau of Statistics.

2. Projections

In the future, the *number of dependent people* can be expected to grow and care arrangements can be expected to change. According to the most recent population forecast from the Federal Office of Statistics, the number of people aged 65 or older and 80 or older will grow by 45 percent and 111 percent respectively until 2040 (own calculation based on Federal Office of Statistics 2006). Since these are the age groups with the highest dependency rates, the number of dependent people will also increase. Projections based on constant age-specific and sex-specific dependency rates show growth rates of between 50 and 80 percent. Assuming a decline in age-specific dependency rates (as assumed, for example, by Jacobzone et al, 1998) yields much lower, but still considerable growth rates (Table 6).

Table 6: Projections of the Number of Dependent People

Assumption about Age-specific Dependency Rates	Growth in Number of Dependent People until 2040	*Source*
Constant	50-75%	Hof, 2001
Constant	60%	Dietz, 2002
Constant	60%	Rothgang, 2002b
Constant	80%	Ruerup–Commission. 2003
Declining	45%	Rothgang, 2002b

Source: Own depiction.

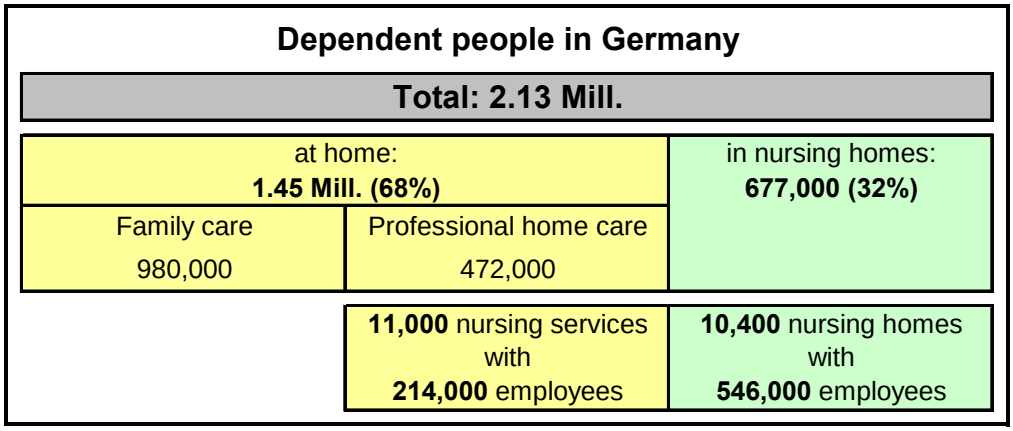
As demonstrated above, over the last decade formal care has partly begun to substitute family care. A further *shift to formal care* can be expected to occur in the future due to at least four factors. First, for demographic reasons alone, the ratio of potential caregivers to dependent elderly will be declining: On the one hand the share of widowed dependent elderly will decline as the war generation is gradually replaced by post-war generations, so there will be more spouse carers. The latter, however, is unlikely to balance the former. Second, female labor market participation is likely to increase, which will increase the opportunity costs of care-giving for women. This is reinforced by the fact that future female cohorts will be better educated and may earn higher wages than their mothers and grandmothers. Third, care potential will be declining because the share of single households among the elderly is expected to grow (Alders and Manting, 2003; Hullen, 2003; and Mai, 2003). Finally, as surveys reveal, the moral obligation to care for dependent parents is gradually vanishing. This has been partly reinforced by the introduction of the LTCI, which explicitly regards long-term care as the responsibility of society as a whole, thus making clear that it is (no longer) a purely family obligation. Projections therefore assume a shift towards formal care, which could either lead to more nursing home care, to a strengthening of formal home care or a combination of both.

3. Labour Market Issues Concerning Formal and Informal Care

3.1 Care Workers in Germany

The situation on the German labour market for care workers is highly influenced by changes in the demographic structure of the German population. The ageing society will increase the demand for care provision while the number of people available to provide this care will decrease.

Figure 6: Long Term Care in Germany, end of 2005



Source: Federal Statistical Office (2007).

By the end of 2005 about 2.13 Million people are requiring care. 46 % are cared for exclusively by relatives, friends etc. without professional assistance. Another 22 % are cared for at home with professional carers as part of the care arrangement. In total 1.45 million dependent people are cared for at home. Another 32 % are living in nursing homes. Even people requiring high levels of care are mostly cared for at home. So, nearly 51 % of LTCI beneficiaries in level III are attended at home (Federal Statistical Office (2007), own calculations). Most care-givers in Germany, professional and non-professional, are women. In the professional care sector we find 85.5 % women (Federal Statistical Office 2007, own calculations), while in the informal sector 73 % of all caregivers are female (Schneekloth 2005: 77).

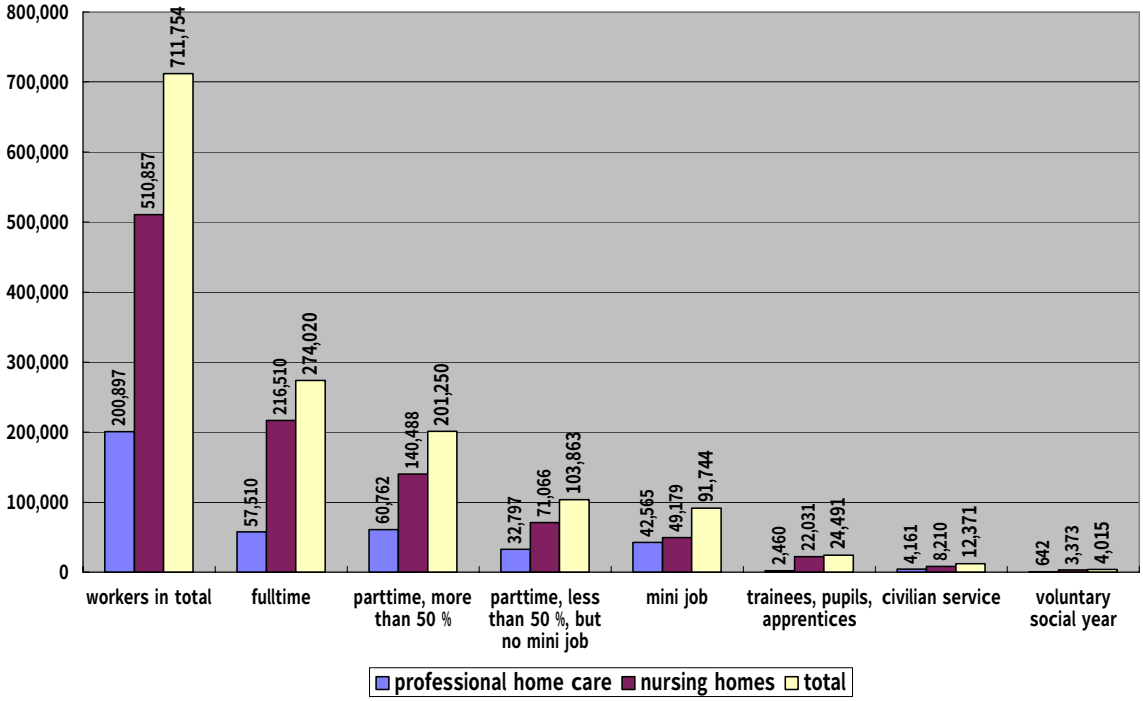
There is, however, a trend towards professional care and towards nursing home care (see section II.1). Doehner/Rothgang: 2006). The number of dependent people living at home and receiving just cash transfers provides an indicator for the number of people receiving no formal care. Because in-kind benefits have a higher monetary value than cash benefits, it can be assumed, that people choosing cash benefits do not utilise formal care at all. They may, however, employ home-helpers from the grey and the black market.

The above mentioned trends towards formal care could be a first result of the decreasing informal care potential. Even though the compatibility of informal care-giving and occupation in the formal labour market has been improved since the introduction of the LTCI, most main caregivers are not able to continue their jobs unchanged. 51 % main caregivers did not work when starting care-giving, 21 % gave up their jobs or reduced working hours. Only 26 % of main caregivers could continue their jobs (Schneeklooth 2005: 79). Looking at the time spent with caring, these data is no surprise: According to Schneekloth, the weekly time spent for caring in private households averages 36.7 hours, with a range from 29.4 hours for people with in level I and 54.2 hours for elderly in level III (Schneeklooth 2005: 78). In professional care various types of qualifications exist in the German care market (see appendix for an overview).

3.2 Labour conditions for care workers

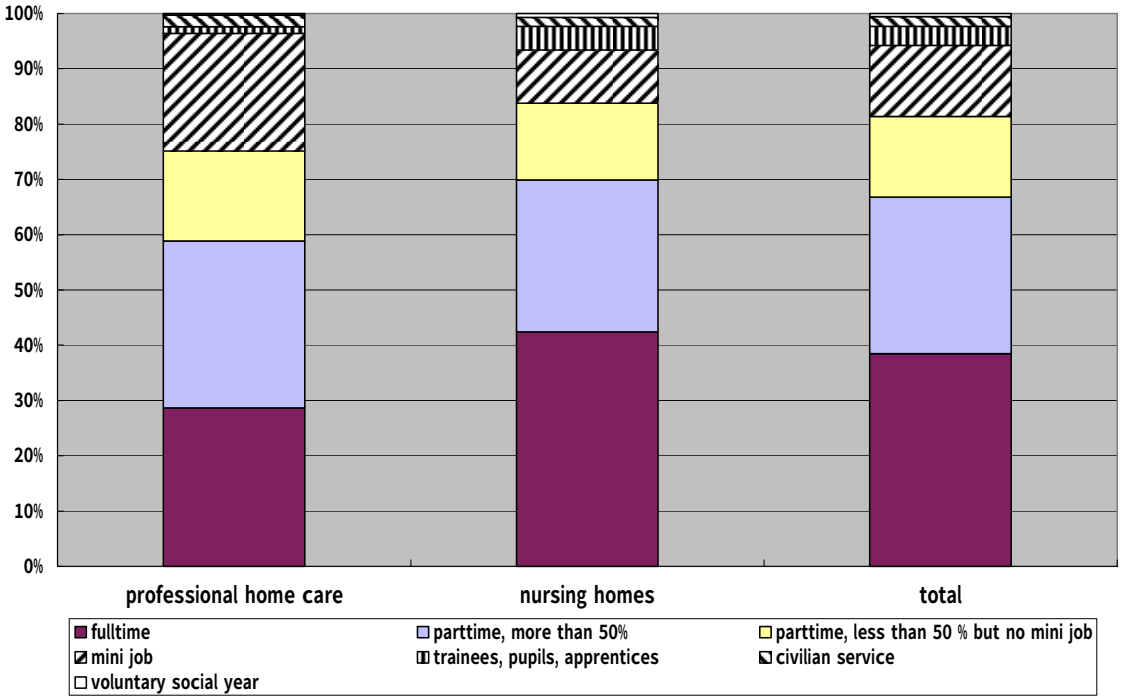
Breaking down the absolute number of professional care workers yields the figures depicted in Figure 7. According to these data 42.4 % of jobs in nursing homes are fulltime jobs. In professional home care, the largest parts of jobs are part-time jobs as well. Only 28.6 % of professional home carers are working fulltime. 46.5 % have part-time jobs, not included 21.2 % mini jobber (Figure 8).[5]

Figure 7: Number of professional care workers in Germany (15-12-2003)



Source: Own depiction based on data from Federal Statistical Office (2005a).

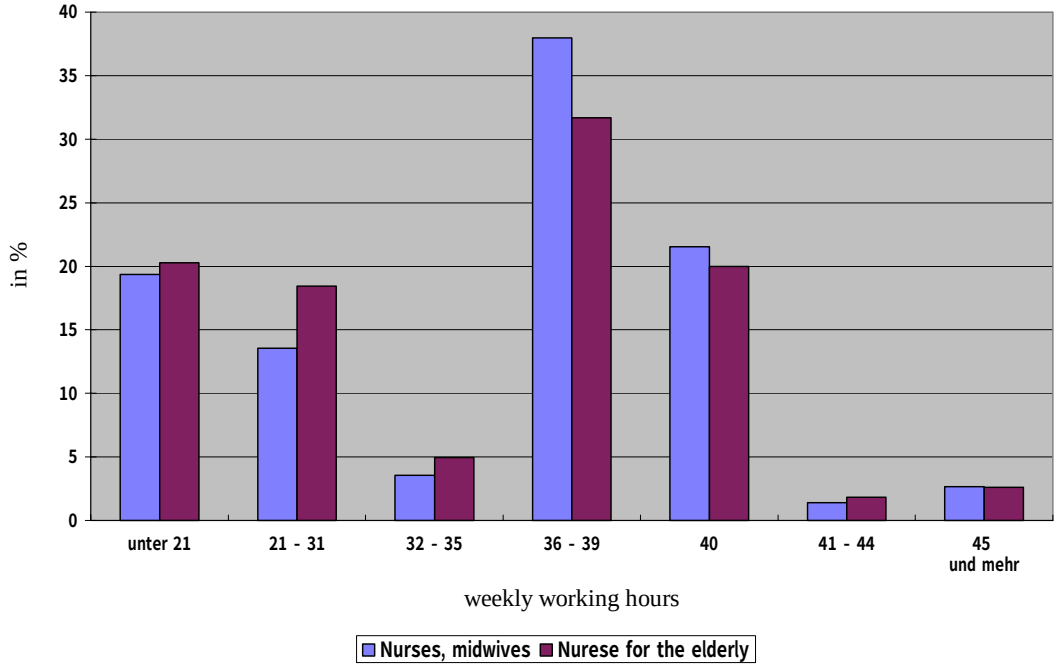
Figure 8: Care workers in Germany by type of employment in %



Source: Own calculations, own depiction, based on data from Federal Statistical Office (2005a).

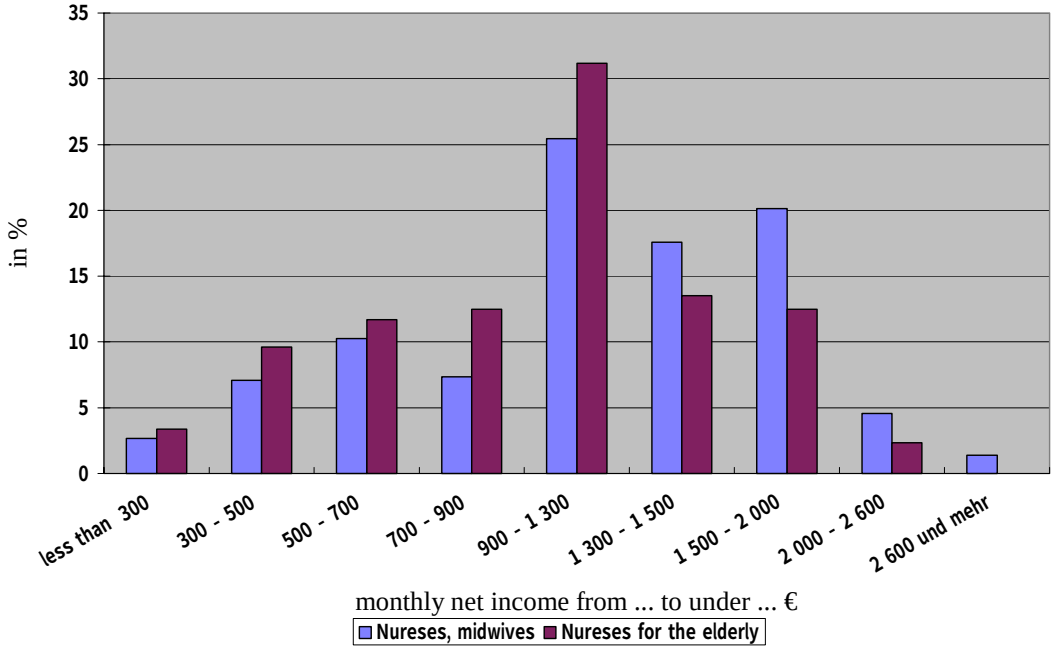
In March 2004 the Federal Statistical Office (FSO) collected the following data applying the working conditions of nurses for the elderly. Figure 9 reveals a significant amount of part time work; with only 25 % of nurses for the elderly are working 40 hours per week or more. The health situation of care workers is often worse than in other working sectors, which could be a main cause for preponderant part time jobs in care (Delta Lloyd 2006: 17)

Figure 9: Weekly Working Hours of Professional Carers



Source: Own depiction based on data from Federal Statistical Office (2005b)

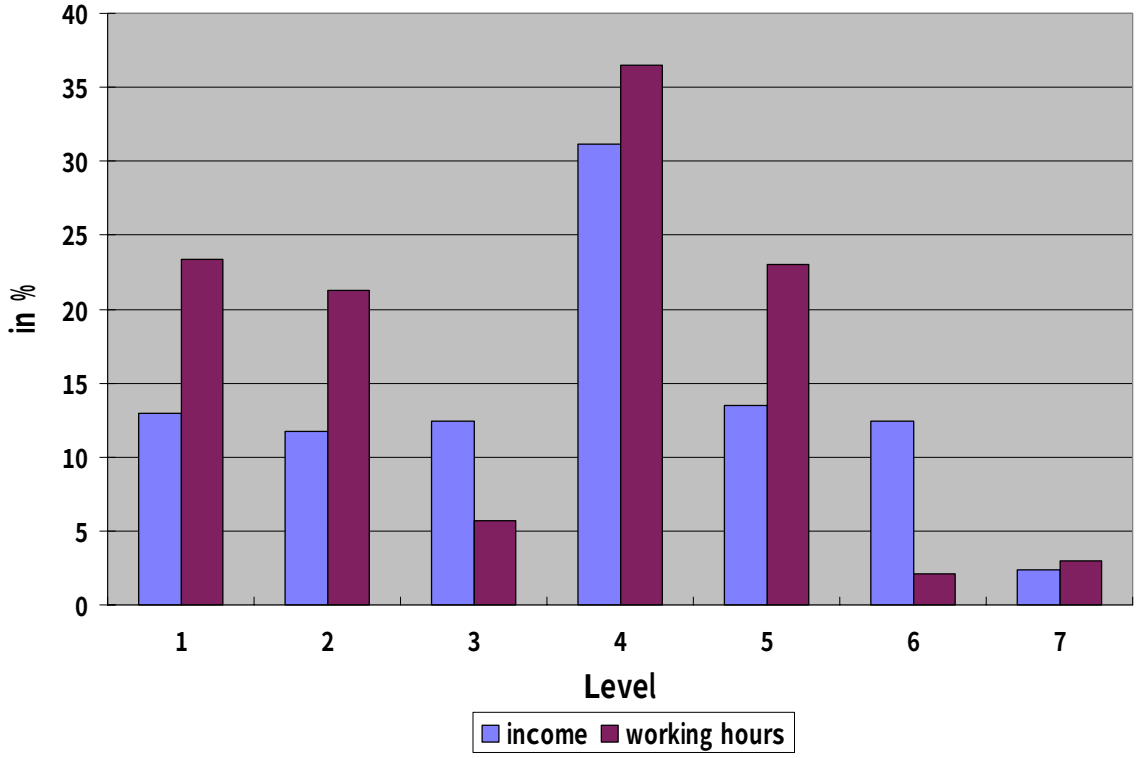
Figure 10: Monthly Net Income of Professional Carers



Source: Own depiction based on data from Federal Statistical Office (2005b)

These findings correspond to the data presented in figure 10. The data pertaining to the income situation of nurses reflects in large parts their working hours (see figure 11). In contrast, nurses not specialised on care for the elderly and midwives face a broader range in income, but in average they all earn between 900 and 1,300 € monthly.

Figure 11: Income and working hours from nurses for the elderly



The "levels" are defined as:

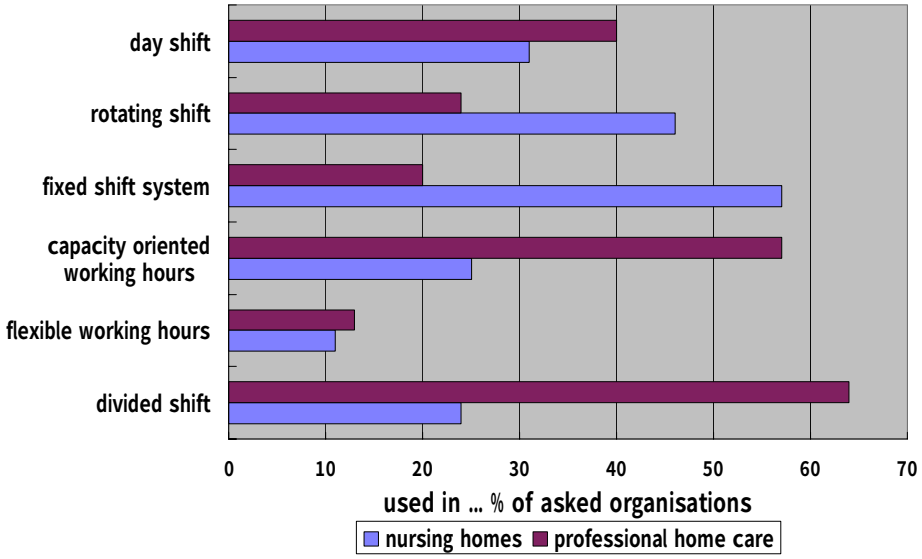
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
Net income per month	Less than 500	500 – under 700	700 – under 900	900 – under 1,300	1,300 – under 1,500	1,500 – under 2,000	2,000 and more
Working hours per week	Less than 21	21-31	32-35	36-39	40	41-44	45 and more

Source: Own depiction based on data from Federal Statistical Office (2005b).

Literature about professional care work mentions the extraordinary stress and strain related to this working sector. Especially the shift systems and unsteady volume of work are core points of criticism (Landenberger/Ortmann 1999; Robert Bosch Stiftung 1992). Concerning the shift systems we observed a key difference between working conditions in home care and nursing homes. In home care the divided shift is the most common working system. Divided shift means, workers have to work two times a day with a longer break of a few hours in the middle. This situation is not surprising, looking at the work, which is done by home carers. Often they will support the dependent elderly in the morning: helping them with getting up, washing and dressing and the second time most dependent need help is the evening.

In nursing homes the fixed shift system is most common. Most nursing homes occupying special nurses, working only night shift, while others nurses work in early or late day shift.

Figure 12: Working Schedule Systems



Source: Own calculations and depiction based on data from Federal Statistical Office (2005b).

The introduction of LTCI in Germany enabled dependent people to spend some money for informal care. Receiving cash benefits, they are free to use them e.g. as allowance for their informal caregiver. Most caregivers are partners or children of the care recipients (see section II.1). The share of caring sons among main-caregivers has been rising from 1991 to 2002 from 3 % to 10 %. Parents are the main caregivers for younger dependent people (Schneekloth 2005: 77).

Most caregivers are 55 years old and older. In this state of life, they often have a tight relationship to their family and more time available then in earlier years, as their children are grown up and/or they are already retired. These factors are important in explaining the great willingness to care in Germany (Schneekloth 2005: 76 f.). To predict future trends in development of informal care it is important to rely on changes affecting these determinants.

3.3 Future of Care in Germany

Combining demographic projections and age- and sex-specific care probabilities the number of future LTCI beneficiaries can be estimated. According to a respective projection model, developed by Rothgang (2002: 2 ff.), until 2040 the number of beneficiaries will rise to 2.5 – 3.3 millions, depending on different assumptions concerning age-specific morbidity and population development. These calculations are based on the "9. koordinierte Bevoelkerungsvoraus-berechnung" of the German Federal Statistical Office (FSO), published in July 2000. One reason for the great variance is that the FSO gives data about four different scenarios of population development. These scenarios assume different rates of migration and mortality. A second reason is the consideration of specific assumptions about morbidity. Previous developments indicate that age-specific morbidity has been declining and will continue to decline (Rothgang 2002a: v ff.). In one scenario, therefore, the age-specific morbidity remains constant over time, while in the other scenario a decreasing morbidity is assumed.[6]

Table 7: Number of Beneficiaries (in thousands)

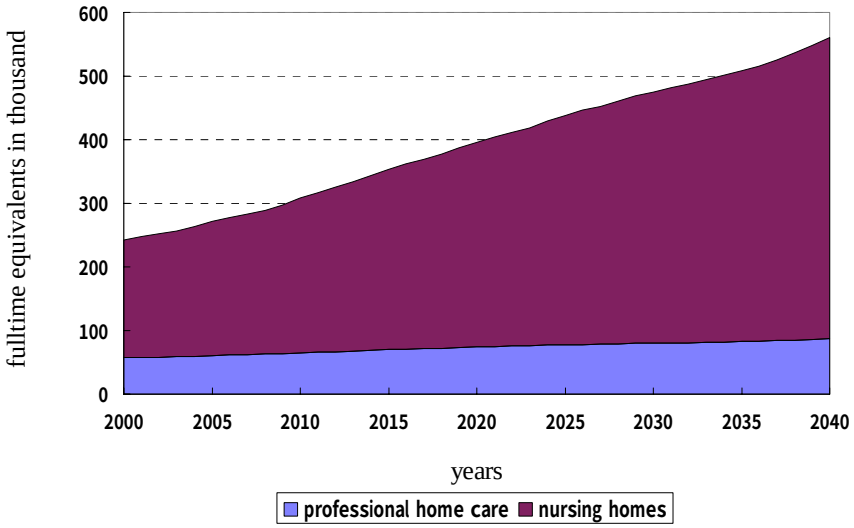
year	scenario 0	scenario 1	scenario 2
constant age specific morbidity			
2020	2,429	2,469	2,480
2030	2,638	2,713	2,734
2040	2,883	2,983	3,022
decreasing age specific morbidity			
2020	2,170	2,206	2,217
2030	2,313	2,381	2,401
2040	2,500	2,590	2,628

Source: Own depiction based on Rothgang (2002): v ff.

In order to project the development of professional care a constant relation between utilisation of professional care and number of professional carers is assumed. 1998 nearly 400,000 persons worked as carers for the elderly. These 400,000 people represent

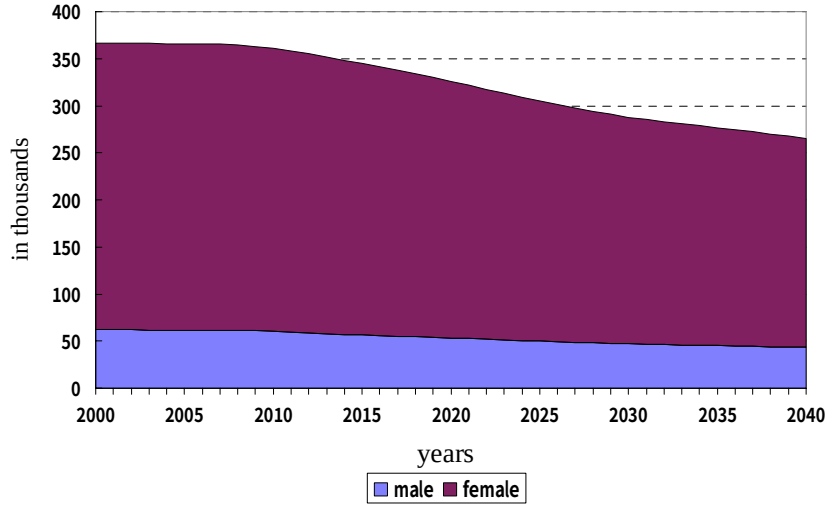
300,000 fulltime jobs. With this manpower, they cared for about 700,000 dependent people in nursing homes and private households (Rothgang 2002a: S. 80 f.). In 1998, we had 220 fulltime equivalents in home care and 372 in nursing home care for each 1.000 dependent people. In combination with the projection of the number of dependent people, it is possible to project the future need of professional care. Figure 13 shows this chart for growing significance of professional care. Until 2040 the need for professional carers can be expected to grow between 70% and 130%.

Figure 13: Demand for care workers for the elderly
(assuming increasing utilisation of formal care)



On the other hand the care potential will decline (Figure 14). Assuming that for both sexes the share of people working in long-term care will remain constant for each age bracket, from 2000 to 2040 the number of professional carers is going to decline by about 100,000 from 366,000 to 265,000. The validity of this model is limited due to the high number of estimates, but the trend is clear: in the long run we will face a workforce shortage in care (Rothgang 2002a: 81 ff.). For guarantying the continued existence of a sufficient care workforce it is necessary to create new incentives for making care work more attractive. One possibility could be the reform of education systems.[7]

Figure 14: Projected number of care workers for the elderly



Facing the fact, that less than 40 % of jobs in care are fulltime jobs with accordingly low income, working in care sector is not attractive. Possibilities for a career are low, the income is low and not sufficient differentiated. Besides the unattractive working times, matched with the great stress revealed with this kind of jobs, combined with sunken reputation in society, working in professional care becomes more and more unattractive (Delta Lloyd 2006: 17)

The education of care workers in Germany (see section II: 4.3.5) is divided into education of nurses, nurses for the elderly, midwives etc. In other European countries, we do not find this separation. In writings of Landenberger and Ortmann (1999) or the Robert Bosch Stiftung (2001) we find pleadings for changing the system of educating care workers in Germany. They favour a solution of a universal, basic common training for all care workers with the possibility to specialise on different key issues.

4. Current Problems and Proposed Solutions

4.1 Reforming Market Regulation for Care Provision

Although recent debates on a reform of LTCI are centered on financing issues, some reform issues relate to market regulation and to the benefit structure. While some debates have already led to changes in the institutional structure, most center on future reforms.

With respect to *market regulation*, two issues have dominated the debate – the relationship between competition and planning on the one hand and the mechanisms by which remuneration for nursing homes is determined on the other hand.

Competition and Planning. While *competition* between health insurance funds was introduced in the early 1990s, there is no competition among LTCI funds. All funds offer identical benefits and require an identical contribution rate and have identical contracts with providers. Moreover, an equalization scheme guarantees that all expenses are covered by all contributions. Hence, in effect, all funds are just "branches" of one LTCI. Competition is among (contracted) providers for contracts with dependent people and their families, who choose not only among different providers of services, but also between different care arrangements, in other words, between buying formal care or relying on the help of family or friends only. The choice between cash benefits and in-kind benefits enhances this make-or-buy decision for each household. As each use of formal services implies a reduction in claim to cash benefits, there is an implicit co-payment for all service use, which prevents over-utilization of services due to moral hazard behavior and produces some price elasticity of demand.

The intensity of competition in these circumstances heavily depends on how much access providers have to the market. The LTCI Act tried to intensify competition by stripping public and private non-profit providers of all of the privileges that they had had traditionally. Moreover, the LTCI Act entitles every provider that fulfils certain formal criteria to a contract with the LTCI funds – irrespective of whether the LTCI funds or a government agency think an additional provider is needed. Since benefits are capped and providers do not assess beneficiaries' entitlement to benefits, oversupply was not regarded as a possible problem for the system.

At the provincial level, however, this was seen differently. Laender governments restricted their subsidies for investment costs to those nursing homes that they regarded as "necessary." Without public subsidies, the daily rates were higher, putting the nursing homes that did not receive subsidies at a disadvantage. Even worse, municipalities and provinces denied granting social assistance if dependent person were to go to a nursing home that did not receive public subsidies for investment costs – in extreme irrespective on overall costs of the nursing home. Thus, the market was effectively closed to newcomers. However, following a ruling from the Federal Court of Social Law in 2001, regulations of this kind have been abolished or are about to be abolished. Today therefore, provinces have reduced their planning activities and are giving way to competition of providers.

Remuneration of Nursing Home Care. Daily rates for nursing homes are set as a result of a bargaining process between LTCI funds and social assistance agencies on the one side and the providers on the other side. Rates are differentiated according to three classes that by and large follow the three levels of dependency. Recently, this *system of pricing* has been challenged on three counts.

First, the legitimacy of the *bargaining system* has been questioned. Funds negotiate with providers over rates for care costs although they only finance benefits that fall well below those rates. Furthermore, they are also responsible for negotiating rates for room and board, although they never finance this part of the rates and are thus not affected by the results of negotiations. This also applies to municipalities, which negotiate on behalf of residents of nursing homes who never receive any social assistance. Funding agencies thus negotiate only as advocates for their clients without being (fully) affected by the results of the negotiations. Therefore, some experts are now advocating in favor of introducing market pricing in those regions with

sufficient supply of providers. As residents of nursing homes are captive consumers, it would, however, be vital to implement regulations to protect them from abrupt rises in rates if this road was to be followed. Similar regulation already exists for rented flats. Furthermore, a maximum rate would have to be fixed for recipients of social assistance, for example, based on the average rate. For those users not eligible for social assistance, the co-payment resulting from capped benefits would act as an incentive against ex post moral hazard.

Second, the *unit for pricing* has been challenged. Since only three classes exist, there is a lot of heterogeneity within each class. Thus, nursing homes must charge the same rate for people needing very different amounts of care. Even if the number of classes were to be increased to five as in Japan, the problem would still exist. In order to solve this problem, rather a classification system such as the US Resource Utilization Group System could be implemented, which distinguishes among 44 classes of dependent people with similar needs. Alternatively, the notion of paying a comprehensive rate could be abolished and dependent person would pay for board and lodging and could then buy certain service packages (*Leistungskomplexe*) such as bathing and morning toilet. In this case, the distinction between formal home care and nursing home care would have been abolished.

Third, the *process of price negotiations* itself is being questioned. Although prospective budgeting is used, in practice the costs incurred by each nursing home in the past still influence what daily rate for the next period it can achieve in the negotiations. Therefore, striving for efficiency is discouraged. Efficiency incentives could only be introduced if the rate is identically fixed for all nursing homes in a given region, e.g. based on the average costs of all nursing homes in this region.

Although the pricing system has been questioned, for example, in a recent report from the province of Northrhine-Westfalia (Landtag NRW, 2005), respective reforms are unlikely to be adopted in the near future as other questions are regarded as more pressing.

4.2 The Structure of Benefits

There are two major issues currently being discussed with respect to the structure of benefits: the introduction of additional benefits for dependent people with dementia and the equalization of benefits for formal home care and those for nursing home care. The so-called Ruerup Commission (the commission for achieving financial sustainability for the social security system) (2003) made suggestions about both of these issues, which were picked up in a reform bill that was prepared in the winter of 2003/04. However, the reform proposal was shot down as a whole by the former German chancellor, Gerhard Schroeder, who felt that his pension and labor market reforms had caused enough trouble for his government at that time. Therefore, he decided to postpone any LTCI reform that would lead to additional spending and thus require the population to make more sacrifices in order to finance it. So it was not the content of the reform but rather its timing that put an end to this reform initiative. Currently, however, the grand coalition has started a new attempt for reform, which includes both elements, the equalizing benefits for formal home care and nursing home care as well as additional benefits for people with dementia.

Benefits for People with Dementia. By now, all political parties and all experts agree that in LTCI *people with dementia* are discriminated against. Dependency is defined only with respect to ADLs without taking into account the particular needs of people with dementia. Consequently, many people with dementia do not qualify for LTCI benefits or receive benefits for moderate dependency (level I) even though they need supervision around the clock. From 2002 onwards, additional benefits for dependent people with dementia in home care were introduced as a first step towards solving this problem. These benefits are earmarked for day and night care, respite care, or related services. However, the maximum annual amount to be spent on those additional services was set at a mere 460 €. This low ceiling may be the most important reason why in 2003 only 30,000 people applied for this specific benefit out of an estimated 400,000 people who were assumed to be entitled to it (BMGS, 2004). So while the government originally expected an additional 250 million € to be spent on this benefit, in 2003 only 13.4 million € were spent.

The most straightforward way to resolve the problem would be to change the (legal) concept of dependency and establish a definition that is not based on ADLs and physical needs alone. As the fiscal consequences of such a bold move are difficult to calculate, this has not yet been seriously discussed among politicians. In November 2006, however, a new expert body was founded, which should look into that and develop a new legal concept of dependency. In the short run, however, politicians rather favor a more modest solution. The current plans aim to increase the additional benefit to 1,200 € per year and entitle all people suffering from dementia even if they are not entitled for LTCI benefits.

Equalizing Benefits for Formal Home Care and

Nursing Home Care. Another element of the failed reform of the winter of 2003/2004 was the attempt to *equalize benefits* in formal home care and nursing home care. The starting point of the proposal is a reversal of a perverse incentive in the current benefit structure. In levels II and III, benefits for nursing homes are much higher than benefits for formal home care, thus creating an incentive in favor of nursing home care, particularly in level I where – generally speaking – nursing home care is least necessary. This incentive would be abolished if benefits were the same for formal home care and nursing home care. There would be another advantage of such equalization. Today, each care arrangement must be categorized either as nursing home care or as home care. Alternative care arrangements such as small groups of dependent people living together in a flat suffer from the legal restrictions caused by this dichotomy. Equal benefits for all types of formal care would help to reduce such restrictions.

The fiscal effects of this equalization, however, would depend on how the benefits were equalized. If this were achieved simply by cutting benefits for residential care, this can be expected to lead to a decline in LTCI expenditures but also an increase in the number of recipients of social assistance. Making moderate cuts in benefits for nursing home care while at the same time increasing benefits for professional home care, on the other hand, would have unclear fiscal consequences. A rise in the benefits for formal home care would be an incentive for recipients of (low) cash allowances to rather choose the increased in-kind benefits. Thus a partial substitution of cash allowances by formal home care could happen, which would cause an increase in LTCI spending. Current reform proposals, nevertheless, opt exactly for such a move with increasing benefits for formal home care and decreasing benefits for nursing home care.

4.3 Quality Issues

4.3.1 Situation before the LTC-Act

Quality in the field of LTC was not really an important issue before the enactment of the LTC-Act in 1994. Before this time, only the residential home authorities (Heimaufsicht) had a look on quality of LTC in nursing homes. But the quality inspected was less the quality of care and nursing, but more the structural quality (above all construction requirements, room size and equipment, staff qualification). Beyond those structural quality requirements there were no further standards as regards personal care itself. The legal framework did not contain those requirements in a detailed, but only in a very general manner. As the residential home authorities are organized on the Laender level, sometimes on the level of local authorities, quality requirements considerably varied. There was no nationwide common understanding of those requirements. Quality requirements were not controlled by federal courts, so that a nationwide binding interpretation of those requirements was not given.

4.3.2 Situation after the LTC-Act

This situation changed with the enactment of the LTC-Act. The insurance bodies have now the duty to control the quality of LTC service benefits. The inspection of quality is entrusted to the Medical Review Board (Medizinischer Dienst der Krankenversicherung – MDK), a body, which has large empowerments of inspection of quality not only in the sickness insurance field, but since the LTC-Act also in the field of LTC. The different MDK bodies are de facto, not legally, covered by an umbrella body, the Federal Medical Review Board (Medizinischer Dienst der Spitzenverbaende der Krankenkassen – MDS). The MDS is empowered, together with other bodies on the national level, to formulate guidelines and common rules for quality of LTC. Thus, for the first time in Germany, nationwide rules for quality requirements are established. Nevertheless, there is sometimes still a broad range of discretion on quality requirements for the different MDK bodies.

Nursing homes are now submitted to two kinds of quality inspection: by the residential home authorities and, too, by the MDK bodies if the nursing home delivers LTC-services to recipients of LTC under the LTC-Act. These inspections are sometimes not coordinated – despite statutory requirements of coordination for the two bodies.

The MDK bodies are entrusted, too, with the assessment of the care needs of LTC-recipients. But this assessment is restricted to the needs covered by LTC-benefits, such are above all the activities of daily life (ADL). A broader assessment of all the needs of a dependent person is under discussion, but not yet enacted. An advisory board of the Ministry of Health has now (since November 2006) the task to work on this topic.

The entire quality assurance scheme provided by the LTC-Act has only effects on professional care service delivery in the field of home care as well as in the field of nursing home care. The quality control of family care given by family members or volunteers is organised in a different manner: recipients of the home care allowance – a kind of lump sum depending on the degree of dependency (see also section I – table 2) – are obliged to have a professional counselling by a provider of formal

care every six months for persons in dependency level I or II, and once within a period of three months for persons with the highest degree of dependency (level III). As the majority of dependent persons choose the care allowance (see section I.1), a great difference of quality can be stated in the field of home care depending either on professional or on informal care delivery.

4.3.3 Evolution of the legal framework for quality assurance after the LTC-Acts

Assessment by Medical Review Boards

The initial assessment of dependent people is entrusted to the MDK-bodies (see section 4.3.2). This assessment does not only relate to the degree of dependency but extends to the possibilities of rehabilitation of the person in need, the housing facilities (accessibility for handicapped persons). The MDK may have a look into medical documents and ask persons and services contributing to care services delivery.

It is important to know that the MDK-bodies are not only composed by physicians, but also by professional nurses and members of nursing-related professions.

Quality management by providers

LTC-service providers are legally bound to take care of LTC-quality ("assurance and development of care quality"). Points of reference for LTC-quality are laid down in rules established by the LTC-insurance bodies and their national and Laender associations. As all LTC-providers are to follow the lex-artis-rule (state of the art of medical and care knowledge) this rule is the principal guideline for LTC-service quality. The problem is that there is not, as in the medical field, a widespread common knowledge in the field of LTC compared to the medical field. Such, the state of the art in the field of LTC is not a generally accepted and generally known rule. There are, for the moment, only three national standards which are accepted as nationally consented care standards.

Providers are obliged to apply a series of internal quality management systems (documentation on care delivery, internal preventive check systems and so on). These requirements are laid down in the Guidelines for Quality Control (Qualitaets-Pruefungsrichtlinien - QPR).

Disclosure of service-related information

Services are legally bound – by the LTC-Act as well as by the Residential Home Act (Heimgesetz – HeimG) to disclose any information connected to structural and procedural quality and results of quality. This information is not only to be given at the beginning of an enterprise, but has to be delivered regularly.

Ombudsman system, etc.

Up to now there is no national or Laender ombudsman system. But some cities and other local authorities provide informal possibilities for complaints of cared and caring persons.

4.3.4 Evolution in fact

Generalities

We have to state that the introduction of LTC-Insurance was *the* reason to introduce quality assurance in the field of LTC for the first time. Before this time, quality of LTC-services was neither a legal topic nor an issue which was of practical concern in the field of LTC.

Evaluation on the consumer side

Consumers are more and more sensitive for care quality topics. But this sensitiveness is more orientated to so-called care-scandals ("Pflegeskandale") than to the every-day delivery of care. The German Government is eager to provide more information on care quality topics. It has organized a Round Table LTC (Runder Tisch Pflege), which was established in four work groups. Two of those work groups dealt with quality in home and institutional care, one with de-bureaucratism, and one with a Charta of the Rights of Persons in Need of LTC. This Charta does not create new rights, but it consists in a collection of all the fundamental rights (constitutional rights and freedoms), the rights in the different Acts (LTC-Act, Residential Homes Act, Social Assistance Act, Sickness Insurance Act etc.). This Charta was presented in public in September 2005 and is published. LTC-service providers are invited to engage in the realisation of the rights laid down in the Charta.

Change of the attitude of service-providers

Service providers soon after the enactment of LTC-Insurance felt the necessity to act in the field of quality. On the one hand, legal requirements obliged them to do so; on the other hand, they were afraid of too much regulation stemming from public authorities. Especially the associations of charities (Freie Wohlfahrtspflege), but also the associations of private for profit nursing home enterprises engaged in quality activities. Nearly each association has now a special quality certificate, which should reflect the own quality policy, the aims and the ideology of the enterprise. These quality certificates obliged the service providers to an own

quality management. On the other hand, the diversity of quality certificates gives no transparency for the consumer.

Quality policies at the service providers' management level are still not yet entirely satisfying. A report from 2004 [8] edited by the Federal Medical Review Board for example testifies serious problems of quality assurance.

4.3.5 Qualification and training of professional care workers

Services and institutions of LTC under the LTC-Act have to be managed under the steady control of a professional care worker (Pflegefachkraft). This professional care worker must have a training as nurse (hospital nurse), old person's nurse (Altenpfleger) or as children's nurse (Kinderkrankenschwester).

The training and the legal statute of professional care workers is laid down for (hospital) nurses in the Act on Sickness Care, and for old person's nurse in the Act on Old persons' Care, the two acts being federal acts. These professions are licensed professions which means that a person may only be entitled to designate him or her as nurse, old person's nurse or children's nurse when he or she was trained conforming to the rules established by these Acts.

The Acts describe the goals and the content of the training, the licensed schools for training. The training is practical and a theoretical training of three years and ends with a state exam.

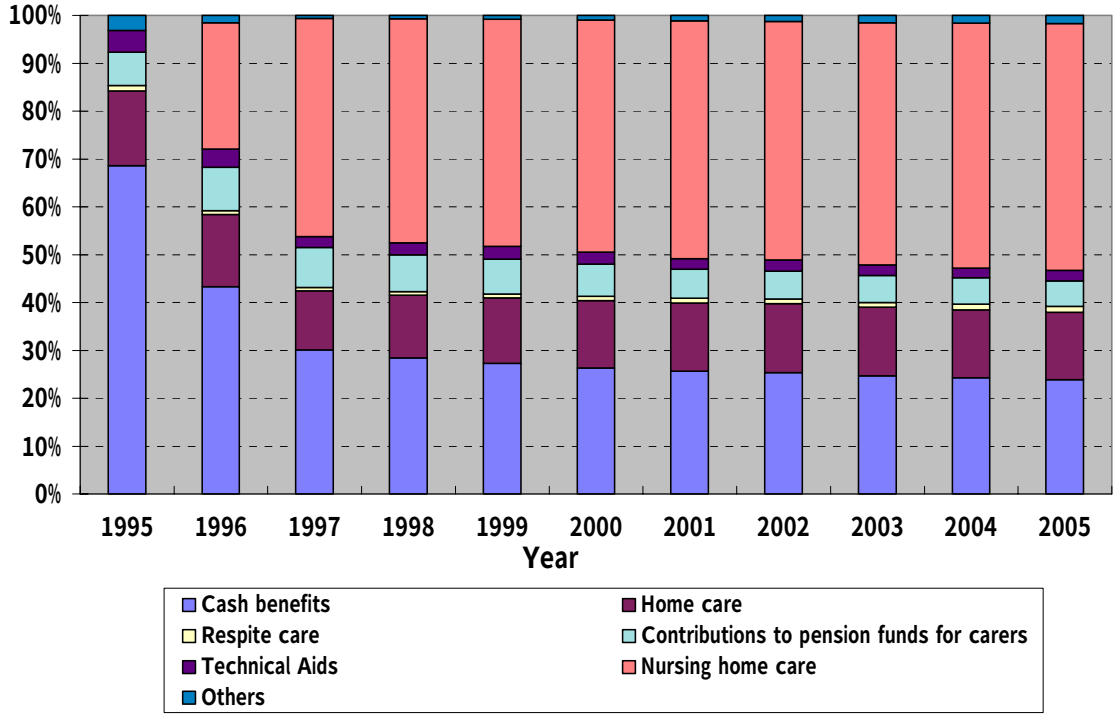
III. Expenditure, Contribution and Balance Sheet

In the above sections some trends concerning care arrangements were analysed. Adding information about contribution allows us to analyse the fiscal situation of the system as a whole. After giving an account of the past and present situations (section III.1), results of some projections are presented (section III.2), thus laying ground for the discussion of reform debates and proposals in section III.3.

1. The Current Situation

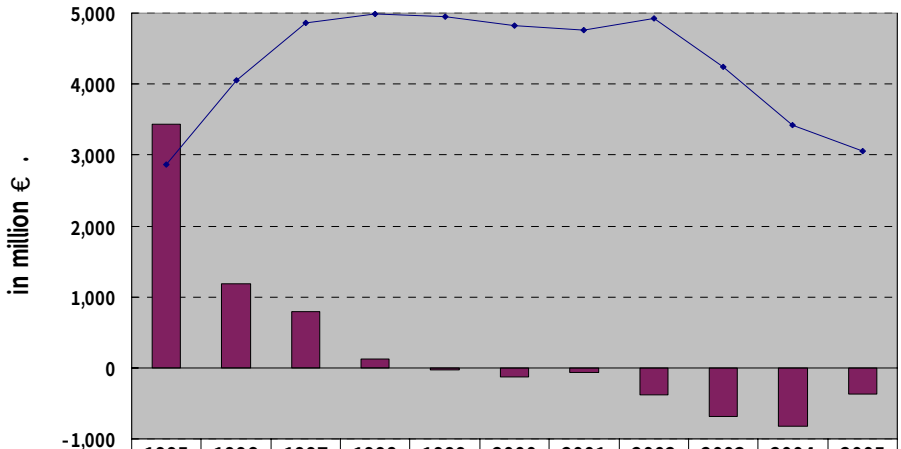
While beneficiaries predominantly choose cash benefits, public LTCI funds spend more on nursing home care due to higher per capita benefits for this type of care. Over time, the proportion of LTCI spending on nursing home care is even increasing (Figure 15). This demonstrates once again the past and potential future fiscal effects of a shift in utilisation towards nursing home care.

Figure 15: Structure of expenditure on benefits



Source: Data from BMG (2006).

Figure 16: Balance sheet of public LTCI



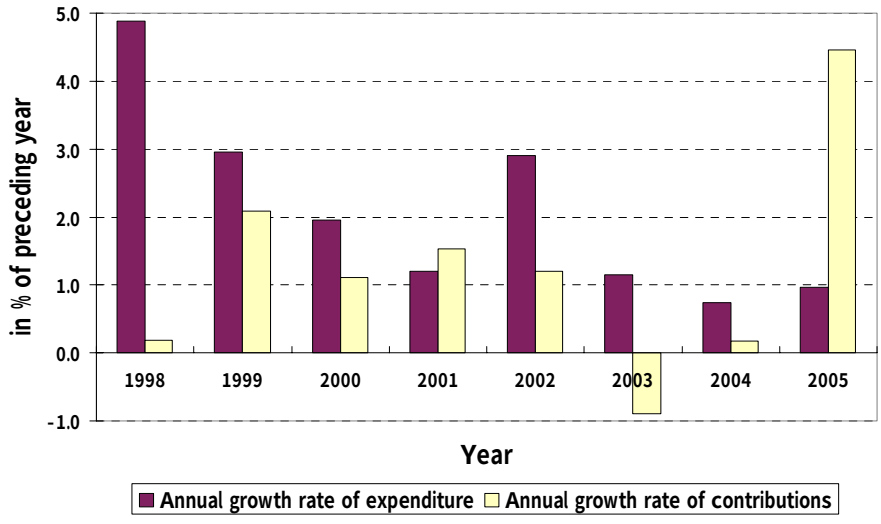
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Balance	3,440	1,180	800	130	-30	-130	-60	-380	-690	-823	-365
Liquidity	2,870	4,050	4,860	4,990	4,950	4,820	4,760	4,930	4,240	3,417	3,054

Source: Data from BMG (2006).

Most important for the sustainability of the long-term care insurance system, however, is the *balance sheet*. As Figure 16 demonstrates, this balance has been deteriorating constantly from high surpluses in the beginning to considerable deficits lately. Current deficits can be met by money in the reserve fund, which was mostly accumulated in the first three months of public LTCI, when only contributions were paid but no benefits were granted, and which was further filled by the considerable surpluses of 1996 and 1997.[9] The deficits of 2003 and 2004 however, started to drain this reserve fund. Without the additional contributions for those without children in 2005 the deficit would have been above 1,000 million Euro.

In order to explain this development, it is useful to look at annual growth rates for contributions and expenditure, which are given in Figure 17. In every year except 2001 and – due to the introduction of the additional contribution rate for the childless – in 2005, the expenditure growth rate for expenditure was higher than the growth rate for contributions. Not that the growth rates for *expenditures* were extraordinarily high. Since 2000, this growth rate has exceeded 2 % only once, and from 1997 to 2004, the geometric mean was a mere 2.0%.

Figure 17: Growth Rates of Contributions and Expenditure



Source: Own calculations, based on data from BMG (2006).

The actual deficit has rather been caused by disappointing growth rates for *contributions*. From 1997 to 2004, the average annual growth rate of nominal (sic!) conributions was 0.8 percent (geometric mean). This is even far below inflation which was on average about 1.3% per year for this period of time. In 2003, contributions actually declined and in 2004, they remain practically unchanged. Thus, growth rates of conributions have been much lower than had been projected by government agencies and researchers alike.

Both of these developments – the moderate growth rates for expenditure and the disappointing growth rates for contributions – need to be explained. The only *moderate growth of expenditures* has been due to two major factors: First, the insurance system is based on a comparatively tight definition of dependency (see Rothgang and Comas-Herrera, 2003), and entitlement for LTCI benefits is based on a rigorous assessment by the Medical Review Board preventing any *ex ante* moral hazard, which might have been expected if service providers were to make these assessments. Revision of the assessment guidelines that aimed to reduce regional variations in assessment results and court jurisdictions actually even reduced the number of claims that were approved. Second, all benefits are capped and have not been adjusted since 1995, not even for inflation. So, while the assessments have prevented any explosion of the number of beneficiaries, the benefit caps have controlled expenditure per beneficiary. Of course there is a "price" to be paid for cost containment of this kind: First, the tight definition of dependency has meant that people with dementia are entitled to LTCI benefits only insofar as they need help with the activities of daily living as the assessment does not evaluate or take into account their general need for supervision. Second, due to the benefit caps, there is still a large amount of out-of-pocket payments, which is unusual for the traditional German social insurance system. Moreover, the number of persons in need of long-term care who depend on social assistance is still high and much higher than had been anticipated when the LTCI act was passed. Finally, the fact that the benefits have never been adjusted in a decade has caused the purchasing power of LTCI benefits to decline, which will eventually lead to a de-legitimization of this branch of social insurance. This is why it is simply not feasible to continue to control costs by capping benefits but never adjusting their value.

The *slow growth of contributions* is partly an effect of certain (social) policies. Certain changes in social law have reduced contributions either explicitly or implicitly. For example, in 2000 the federal government reduced contributions for the unemployed, which have to be financed by the unemployment insurance, because, at that time, it was beset with fiscal problems, while the LTCI had considerable assets. Similarly, the introduction of so-called mini-jobs and midi-jobs, that is jobs earnings up to 400 € and 800 € a month respectively, reduced the amount of contributory income to the LTCI funds as these workers are exempt from making regular contributions. This effect is likely to become yet more noticeable as normal jobs are increasingly transformed into mini-jobs. Something similar is happening to the old-age security system. Recent legislation is aiming at the partial substitution of (mandatory) public schemes by (voluntary) private schemes. In the course of this legislation federal government has introduced new opportunities for sacrificed compensation which reduced the amount of contributory income. A general feature of social policy over the last decades has been that the problems in one branch of the insurance system have often been resolved at the expense of others. As for the existing reserve fund, the LTCI has been used as a melting cow for other branches of social security. In addition, LTCI contributions have suffered from the general trends that have affected all branches of social security, namely the reduction in the number of jobs that are subject to social insurance contributions, cyclical and structural unemployment, and low (if any) rises in wages and pensions.

Thus, it is an irony of history that LTCI financing is in trouble despite successful cost-containment because of inadequate contributions, partly caused by social policy regulations aimed at solving problems in other branches of social security.

As mentioned before, the capped benefits are insufficient to cover even the assessed needs of a dependent elderly. Consequently, *private financing and social assistance* still play an important role in financing long-term care (Table 8).

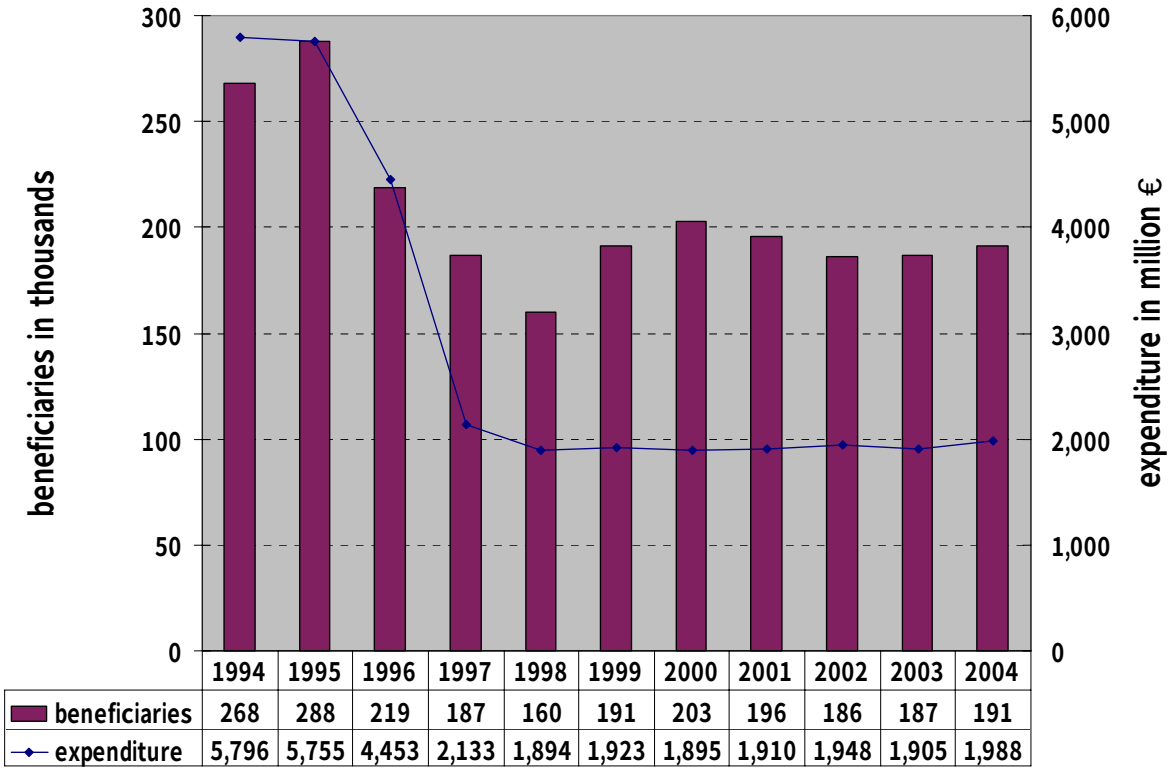
Table 8: Sources of Funding for Long-term Care
(own estimates relating to about 2001)

Source of Funding	In million Euro	As % of Public / Private Spending	As % of All Spending
Public Funding	24,230	100	75
Public LTCI*	17,360	79	60
Private Mandatory LTCI*	0,520	2	2
Social Assistance	2,900	13	10
Investment Financing*	1,070	5	4
Public Accident Insurance	0,080	0	0
Out-of-pocket Private Funding** on:	7,220	100	25
Nursing Home Care	5,050	70	17
Home Care	2,170	30	7
Total	29,160		100

Notes: * Cash allowances are included
** Estimated.
Source: Rothgang and Comas-Herrera, 2003, 159 ff.

According to the figures in Table 8, about one-quarter of all funding is out-of pocket, and another 10 percent comes from means-tested assistance. About 80 percent of public funding and 60 percent of all funding comes from LTCI, highlighting the fiscal importance of this system for LTC.

Figure 18: Social assistance for nursing home care: Number of beneficiaries and expenditure



Source: Data from BMG (2006).

Social assistance expenditure on nursing home care nowadays is less than one-third of what it was in 1995. The number of beneficiaries has also dropped considerably but still is about two-thirds of the 1995 figure (Figure 18). Thus, the introduction of LTCI has not been as successful in terms of the number of beneficiaries as it has been in terms of reducing the fiscal burden on municipalities**.**

2. Projections

Projections can be made concerning the expenditure of public LTCI funds and the contribution rate. Due to demographic changes, both the number of beneficiaries and the funds' expenditure levels can be expected to increase by about 1.2 to 1.5 percent per year. Due to the above mentioned shifts in care arrangements, an additional rise in expenditure of up to 0.5 percent per year can also be expected. If we assume that benefits are going to be increased by about 2 percent per year, this adds up to a 4 percent growth rate per year in expenditure, which simply cannot be financed if the contribution rate remains constant.

Table 9: Projected Contribution Rate in 2040

Projections	Adjustment according to	Source
1.6 – 2.1	Inflation	Rothgang, 2002a
3.6 – 3.9	Average wages and salaries	Rothgang, 2002a
3.0	(Average wages + inflation) / 2	Ruerup –Commission, 2003

Table 9 contains the results of some projections on the contribution rate that all assume rising real wages but differ with respect to the assumed adjustment rule. As long as benefits are adjusted only for inflation, the current contribution rate will more or less suffice albeit with deteriorating purchasing power. However, as soon as we assume that an adjustment will be made (partly) according to wages, the contribution rates are projected to rise.

3. Current Problems and Proposed Solutions

The current deficit of LTCI funds is the starting point for most reform debates, which therefore tend to revolve around fiscal issues. The adjustment of benefits is one issue that is rarely missed out of any proposal. In order to fund such adjustments, two different kinds of proposals have been made: radical reforms and reforms within the current system. We consider each of these in turn in this section and then discuss whether any of these proposals are likely to be implemented and whether they would solve the problems at hand.

3.1 Adjustment of Benefits

There is a general consensus that LTCI benefits must be adjusted if the system is to survive. This could be done more or less regularly at the discretion of politicians or by the introduction of an adjustment mechanism, which would guarantee an automatic adjustment according to some pre-agreed formula. Given what is known about other branches of social security, only an adjustment mechanism will yield a regular adjustment. Since future economic development is always hard to project, adopting any system with a fixed adjustment rate of X percent per year is doomed to fail as the rate is likely to be considered either too high or too low depending on the prevailing economic situation. Therefore, any formula should relate to such macroeconomic indicators as inflation or the rise in average (nominal) gross wages. Assuming that wage increases in the care sector are similar to those in the rest of the economy and assuming further that in the long run wages are the major determinate of the price of labor-intensive care services, adjusting benefits according to the rise in average wages seems to be the perfect indicator if their purchasing power is to be maintained.

3.2 Radical Reform

Three main radical reforms that have been suggested are to integrate LTCI and health insurance or to abolish LTCI in favor of either a tax-funded system or a (mandatory) funded private insurance scheme.

Integrating LTCI and Health Insurance. The suggestion to abolish the separate LTCI and integrate long-term care into health insurance is as old as the insurance system itself. Recently it has been discussed (favorably) by the Enquete Commission (2002) and (less favorably) by the Ruerup Commission (2003). Advocates emphasize the fact that elderly people suffering from multi-morbidity would be better off

when receiving integrated care under this arrangement. Today, e.g. sickness funds have no incentive to grant rehabilitative measures that could reduce dependency because the expenses of long-term care are financed by all of the funds together, while the expenses rest with the individual fund. On the other hand, integrating LTCI and health insurance has dangers and disadvantages as well. Given the relative weight of both areas for example in terms of finance, most likely long-term care issues would be dominated by health issues. Even today, the long-term care divisions within the LTCI funds are rather weak and after any integration, this domination would be likely to increase. The same applies on the service side. As highlighted by Ikegami and Campbell (2002: 721 f.), in an integrated system, medical doctors tend to predominate over nurses, with the result that terminal care is over-medicalized and rehabilitation is under-medicalized. Most importantly, however, the crucial role of the family in providing long-term care is likely to be ignored if health funds were to manage long-term care as well.

The introduction of competition among LTCI funds would be a more moderate solution to the lack of incentives for funds to care for dependent people. As a consequence, the contribution rate could no longer be legally fixed, and each fund would be able to set its own rate. As is well known from the experience of the health insurance system, introducing competition also requires the introduction of a risk-equalization scheme.

However, neither option is likely to be implemented in the next reform, because such schemes are inevitably complicated and as such tend not to be vote-winners. Moreover, the administration seems to be overloaded with complicated reforms in the health care area already.

Replacing LTCI with a Tax-financed System. During the discussions leading up to the LTCI Act, policymakers also discussed a means-tested tax-financed system but ultimately dismissed this alternative. Recently, one member of the Ruerup Commission started the discussion again, but the proposal was dismissed within the Commission. As all major parties favor an insurance system, the replacement of LTCI by a tax-financed system seems extremely unlikely.

Switching to a Funded (Private) System. Switching to a funded private system has mainly been suggested by those economists who generally favor funded systems. Basically, they have suggested two variants of this idea. First, among others, the Kronberger Kreis (Donges et al, 2005), a group of conservative economists, has suggested completely switching the whole population at once. Alternatively, the Council of Economic Advisers (2005) advocates a cohort model in which only those born after 1950 switch to a private funded system while older people remain in the traditional social insurance system. As the older generation cannot bear the financial burden of their own insurance by themselves, they have to be subsidized by the younger generations. Any kind of switch towards a funded system would transfer future burden into the present and would necessitate enormous increases in contributions since benefits for the elderly would have to be financed at the same time as capital stock would have to be built up (double burden). Moreover, this move would not solve the system's current fiscal problems but in fact would increase its actual problems. Therefore, only the small Liberal Party (*Freie Demokratische Partei*) advocates such a policy, which means that a switch of this kind seems very unlikely in the near future.

Introducing a Mandatory Supplementary Funded System. To avoid an unacceptable high double burden, some have advocated a hybrid system that combines public LTCI with a mandatory supplementary funded system. Basically, the existing LTCI would remain untouched – with nominally fixed benefits, which could be financed at the present contribution rate. To compensate for the declining purchasing power of these benefits, each person would be obliged to buy private supplementary insurance. According to a proposal of the peak organization of private insurance companies the benefits of this insurance would be set at whatever level would be necessary to fill the gap caused by missing adjustment in public LTCI.[10] The monthly premium would be 8.50 € per person. It would be neither income-related nor risk-related. Each year, the premium would rise by 1 €. In the long-run the funded system would become dominant and the pay-as-you-go-system would loose relevance.

This model would avoid dramatic rises in premiums and has no legal pitfalls as everyone remains in the existing system. In the long run, however, it would put a considerable burden on low-income households, which would suffer from the phasing out

of income-related premiums. Furthermore, administrative costs would be fairly high as another system would have to be built up for – initially – comparatively very low benefits and premiums. Finally, the co-operation of both insurance systems would have to be secured, which might prove difficult, because supplementary insurance benefits would be low immediately after the introduction of this scheme but would grow continuously until they were higher than the benefits from public insurance.

3.3 Reform within the System

Other than these radical reforms, there are several options for making reforms within the system, in other words reforms that neither abolish public LTCI nor supplement it with an additional system that would eventually dominate public LTCI, but rather concentrate on changing the parameters of the existing financing system.

Tax-financed Subsidies or Contributions to the Insurance System. Both pension insurance and health insurance receive tax-financed subsidies or contributions that are fed into the system. In the current health care reform the increase of tax-financing is even one of the core issues. Obviously, this raises the question of whether something similar is possible for LTCI. However, making tax-financed subsidies to insurance systems needs to be justified. Particularly in pension insurance, the justification centers around the idea that the insurance scheme also provide benefits that are not linked to the social risk covered but rather refer to public policies (as family policies) and should therefore be financed out of the public purse. With respect to LTCI, it could be argued that insuring children without contributions is a kind of family policy that should be tax-financed. Accordingly, tax-financed subsidies to LTCI or tax-financed contributions for children could be justified. Since children produce about 5 percent of all public LTCI expenditures, it might be reasonable to expect the public purse to contribute the same amount. Of course, this could only be one small part of any fiscal reform.

Additional Contributions for Pensioners. Current pensioners have gained windfall profits when LTCI was introduced as a pay-as-you-go system. This fact can be used as a rationale for introducing an additional contribution for pensioners as has been suggested by the Ruerup Commission. Such an additional contribution would in effect counteract this initial "present" from the elderly. As windfall profits are the smaller the younger the cohorts are, the justification for a pure additional contribution for pensioners will vanish over time as younger cohorts enter pension age. To compensate for this, the introduction of an additional contribution for pensioners could be combined with compulsory savings in a private funded pillar of the old-age security system for the younger. This would enable them to pay the additional contribution once they become pensioners themselves. In effect, an extra element of funding would be introduced without the need to introduce a supplementary LTCI, and – contrary to other proposals for introducing funded bits of the system – immediate cash flow is guaranteed from the pensioners' additional contribution.

As normative justification is possible and the potential fiscal effects are substantial, this could be an important element in any financing reform. Unfortunately, pensioners have recently already been subjected to cuts in their pensions. Therefore, any additional LTCI contributions from pensioners must been discussed against the background of social policy in general and old-age security policies in particular.

Raising the Contribution Rate. The easiest way to raise additional funds, however, is simply to raise the contribution rate. This can be done without much administrative effort and will yield additional revenue at once. Even when the system was first introduced, the Bill admitted that there would be increases in the contribution rate. A moderate rise could not harm the country's economic performance and would hardly affect the labor market, particularly if it were combined with a freeze on the employers' contribution.

If any rise is moderate, fiscal effects would be limited as well. Nevertheless, a moderate rise in the contribution rate could be introduced as part of a sensible package deal. For ideological reasons, however, this is unlikely to happen. As all major parties agree that social security contribution rates must be reduced, the persistence of the current rate of 1.7 percent has become a kind of dogma.

Citizens' Insurance (Buergerversicherung). The Social Democratic Party (at least its left wing) and the Green Party both favor transforming the existing long-term care (and health) insurance into a citizens' insurance (*Buergerversicherung*).

The concept is based on two elements: First, all citizens should be part of one insurance system. When implemented, this principle would mark the end of a separate mandatory private LTCI. Second, contributions should be based on all sources of income, not just on income from gainful employment (and derived benefits as benefits for the unemployed and pensions). Both elements combined would increase horizontal justice as all types of income would become contributory and it would also increase vertical justice as high-income groups would participate in redistribution without being able to opt out. The combined insurance would also attract additional revenue equivalent to an increase in the contribution rate of up to 0.2 to 0.5 percentage points. There are, however, administrative and legal problems connected with both elements and only the former element is favored by the Council for Economic Advisers and other more conservative groups. Thus, there is a small chance that the whole population would be forced to enter the public system if this were combined with a radical reform of public LTCI.

IV. Discussion

In this paper current debates with respect to the provision of care and to fiscal questions have been reviewed. As has been demonstrated, today, care-giving relies very much on family care-givers. Due to demographic reasons as well as socio-demographic and cultural changes the relative family care potential, i.e. the number of potential care-givers per person in need of long-term care, is declining. Respectively, even in the last decade a decline in family care-giving could be observed. A shift from informal to formal care, however, requires an increased workforce in formal care-giving. Respective projection show instead that even if the share of people who take up care-giving as a profession remains constant the need for carers will increase while the supply will decrease leading to a huge gap. Thus, a higher recruitment is asked for – but unlikely given low payment and unattractive working conditions. Since neither family care can prevail in its current role nor can formal care take over, "*mixed care arrangements*" are the only possible solutions (cf. Döhner / Rothgang 2006). This implies that families open up for supporting services and professional providers accept a new role as partners of families and source of advice rather than as hands on carers.

Mixed care arrangements also require that formal care becomes *more flexible*. By now dependent elderly can only choose among about two dozens service packages *(Leistungskomplexe).* If formal care providers and informal carers are to work together more closely these arrangements have to be liberalized. A current experiment with care budgets and case managers who help spending the budget in the most effective and efficient way, hint towards possible solutions.

New care arrangements can also be found in *new forms of care services and housing* in such settings which are not especially arranged for people in need of LTC-services but which are created generally for older persons. These different forms are sometimes difficult to distinguish. Some of them have experimental character, some of them are only to be found in some regions, and some of them are fostered by national institutions. The following list is therefore by no means exhausting:

- *Housing at home with care services ("sheltered housing at home"):*
  In order to stay in the traditional environment services are provided at home. The older person may contract with service providers which may be organized by the home owner enterprise or which may be independent from the home.
- *Sheltered housing*
  Sheltered housing offers autonomous dwelling in apartments specially equipped for the needs of older persons. There are community facilities and offers of services. Usually an emergency call service is provided. This concept is more common in cities than in the rural situation. The legal situation (see above) is rather sophisticated and often not clear for the older persons.
- *Self-organized collective projects*
  Self-organized collective projects of housing in an apartment house have developed in the last 20/30 years. There are integrated forms of living with different groups of dwellers of more generations in order to offer mutual help.
- *Village for older persons*
  In the model of a village for older persons (Altendorf) dwellings are constructed in a separate area. All kinds of services are provided in the village so that there is no need of moving out of the village in the case of need of such services.
- *Joint residences*
  In joint residences groups of older persons in need of LTC get the necessary services by home care services and are therefore considered as a home care

setting. Those groups may live together in an apartment or in a house.

- *House communities*
  House communities have been developed in order to give an alternative to traditional nursing homes. Those communities are conceived like institutional care, but people live together in joint residences groups and have common structures, above all a common kitchen.

These arrangements may differ with respect to the situation of decision of the beneficiary, the form of service provision, or the degree of service provision. Quite regularly they lie, however, somewhere in between institutional and home care. In order to foster such arrangements the equalization of benefits for formal home care and those for nursing home care would be one step in overcoming the segmentation between these forms of care-giving.

With respect to *quality of care*, we firstly have to state that there is no all-over concept of quality assurance or quality management, but there are some important guidelines as regards responsibilities of service providers to produce quality and as regards controls. Since the last ten years, quality assurance was legally based and developed above all on legal grounds. The practice of service providers and of the associations of service providers was to bypass (or: to outrun) in some way the legal requirements by constructing their own quality certificates which should serve as a substitute for the legal requirements. These various forms of certificates are not useful for consumer purposes: they are not transparent; they do not explain which quality for which reasons is certified; they have no explanations on the means of quality management of service providers. Secondly, notwithstanding these efforts in the field of quality (which is considered to be an important issue), there is one great fault in this system of quality assurance: The LTC-Act as well as the Residential Homes Act start from the idea that there are quality standards and rules of the state of the art of delivering LTC-services which just should apply. The truth is that there are only very few nationwide recognised and accepted quality standards which may fulfil the state of the art criteria. Such, the important contents of quality, the description of different standards of qualities, is not available. But there is a variety of quality standards which do not fulfil the internationally accepted criteria of compliance within the professional group and of evidence based nursing (EBN). This, thirdly, leads to the necessity to create an institutional basis to develop LTC-quality standards. This institution or centre has to be independent from political influence, has to integrate the professionals in the field of LTC-care, the care services, cared and caring persons and the financing bodies. The aim is to provide an independent, neutral, scientifically and professionally based knowledge on how to create quality in the field of LTC. One of the problems still not solved in a convenient manner is how to support and improve the quality of care by family members with regard to mixed care arrangements. Notwithstanding the fact, that the LTC-Insurance bodies are obliged to offer free training courses especially for volunteers and caring family members, the take up of these possibilities is not satisfying. One reason may be, that caring family members are to busy in care giving that there is no spare time for these courses.

Recently *fiscal questions* tend to dominate the debate. Due to demographic changes, the number of dependent elderly will continue to increase over the next decades. Although it might be possible to influence the speed of this increase by prevention and rehabilitation and although the fiscal effects of reduced dependency rates are considerable, respective policies for long-term care are not on the political agenda. Political debates rather center on how to cope with increased numbers of dependent elderly. Generally speaking there are three remaining options to deal with demographic change: First, the eligibility criteria could be tightened in order to moderate the expected increase in the number of beneficiaries. Second, individual benefits and/or remuneration for providers could be cut. Third, sources for additional revenue might be discovered and exploited.

In Germany even today, *eligibility criteria* are tighter than in Japan (Campbell, 2002) or in other countries (Rothgang and Comas Herreras, 2003). Moreover, the number of beneficiaries is growing at a moderate pace, and on average the assessed level of dependency is even declining. A recent report concludes that the declining level of assessed dependency is due to tighter eligibility assessments as there is no evidence that the real level of dependency is decreasing (Landtag NRW 2005: 457, own translation). Therefore, there is little room to make even tougher assessments in the future.

Cutting real benefits has been the predominant policy of the last decade. Since benefits are nominally fixed, this policy of real cuts has been executed smoothly simply by not adjusting the benefit caps. Although there has hardly been any protest against this practice in the past, it seems impossible to continue this policy forever. Too many commissions and reports have brought up this issue, and by now the

deteriorating real purchasing power of LTCI benefits is being discussed in the media. *Cuts in remuneration* of service providers would not reduce LTCI expenditure as the latter just depend on the fixed benefits (Table 2). Reduced remuneration would, however, increase the purchasing power of LTCI benefits and thus ease the pressure for adjustments. On the other hand, cuts in remuneration could make formal care benefits more attractive to beneficiaries and thus reduce the extent to which they choose – cheaper – cash allowances. So this could even increase LTCI expenditure.

In a nutshell, real cuts in LTCI benefits are no way to deal with fiscal problems as this strategy has been used exhaustively during the last decade. Cutting remuneration of care providers does not help either, as they do not affect LTCI spending directly and might even lead to a shift in utilization patterns that increase LTCI expenditure. In recognition of this, recent debates about reform have concentrated on the final option – identifying *new sources of revenue*.

Radical reforms are unlikely to be adopted as the political costs would be enormous, and the system is too small (and unimportant) to make it worthwhile to start a public relations campaign on this. This is why *solutions within the system* or solutions that combine new elements with the existing system are more likely.

The obvious way to deal with the fiscal crises, in other words, to increase the contribution rate, cannot be done for ideological reasons. The *citizens' insurance* is favored by one of the partners in the grand coalition but loathed by the other. Thus, a *supplementary privately funded system* seems to be a feasible option as it is ideologically sound (funded private insurance) without causing too much opposition as the initial additional financial burden would be too small to engender much conflict.

All in all, after more than one decade of existence the German long-term care insurance can show several successes, but also some failures and problems: At least *five major successes* have to be mentioned: First, due to the introduction of a public LTCI that followed the pay-as-you go principle, immediate benefits were available to those who were eligible. Second, family care was strengthened, particularly through the introduction of cash benefits and contributions to pension insurance for family carers. Third, the fiscal burden on municipalities was lifted as social assistance spending for dependent people declined by two-thirds. The number of recipients of social assistance was reduced by one-third, which is less than was promised but is still a success. Fourth, the LTCI Act triggered an expansion of capacity in the formal sector and improvements in the quality of care. Finally, attempts to control costs were quite successful.

On the other hand, the system suffers from several *failures and problems*. First, there are the structural problems of service provision. The quality of care is still not satisfactory, alternative care facilities (such as assisted living) are developing only very slowly, there is too little rehabilitation for dependent elderly, there are still breaks in the chain of care between institutions (hospitals, nursing homes, and rehabilitation facilities), and there is no case management to overcome this. Second, there are those problems that could easily be solved if more funding was available. For example, the narrow concept of dependency leads to the neglect of communication needs in general and the particular needs of people with dementia. Tight budgets cause understaffing in nursing homes, and the nominally fixed benefits of the LTCI have caused their purchasing power to decline. Finally, the faltering revenue in particular has caused the public LTCI to incur increasing deficits, which are at the heart of all current reform debates.

Based on this account at least three *lessons* can be learnt from the German experience: First, cash allowances can help to stabilize family care and thus expenditure on long-term care. More than half of all dependent people are cared for without the involvement of any professional carer. Although the data clearly reveal a trend towards formal care, there can hardly be any doubt that cash allowances moderated this trend. Moreover, future care arrangements will inevitably be a combination of formal and informal care. The opportunity to combine cash and in-kind benefits has opened the way to such arrangements. Second, it is possible to control costs. The German system has been quite successful at this, mainly by capping benefits and by having an institution that is independent from providers assessing the eligibility of potential beneficiaries. However, this strategy of effecting real cuts through nominally fixed benefits cannot be applied forever as it causes the purchasing power of the benefits to decline, which will sooner or later de-legitimize the whole system. Finally, even successful cost control is not sufficient to stabilize the system unless a steady growth in revenue can be guaranteed. It must be regarded as an irony of history that the German system is financially unbalanced despite its success in cost-containment simply because of its faltering revenue.

Appendix

Appendix 1: Professional Care Workers in Germany

Professional Care Workers in Germany (15.12.2003)

Qualification	Qualification (German term)	Workers in			therefore females (%)			therefore females (%)		
		Prof. home care	Nursing homes	Σ	Prof. home care	Nursing homes	Σ	Prof. home care	Nursing homes	Σ
state-approved nurses for the elderly	staatl. anerkannte/r Altenpflegerin	31,757	110,208	**141,965**	87.5	85.6	**86.0**	27,787	94,338	**122,125**
state-approved geriatric nurse	staatl. anerkannte/r Altenpflegehelferin	4,816	14,662	**19,478**	91.6	91.6	**91.6**	4,411	13,430	**17,842**
registered nurse	Krankenschwester, -pfleger	63,233	55,348	**118,581**	88.8	89.9	**89.3**	56,151	49,758	**105,909**
auxiliary nurse	Krankenpfleghelfer/in	9,678	18,994	**28,672**	91.4	90.5	**90.8**	8,846	17,190	**26,035**
nurses for children	Kinderkrankenschwester, -pfleger	5,360	3,587	**8,947**	98.0	97.3	**97.7**	5,253	3,490	**8,743**
Orthopedagogist	Heilpädogogin/-e	93	375	**468**	79.6	79.5	**79.5**	74	298	**372**
occupational therapist	Ergotherapeut/in	265	4,202	**4,467**	90.2	88.1	**88.2**	239	3,702	**3,941**
other education in not medical healing occupation sector	sonst. Abschluss im Bereich der nichtärztl. Heilberufe	2,945	3,480	**6,425**	92.8	87.2	**89.8**	2,733	3,035	**5,768**
social pedagogist / social worker	sozial -pädagogischer/-arbeiterischer Berufsabschluss	1,311	6,144	**7,455**	78.0	77.1	**77.3**	1,023	4,737	**5,760**
other	Familienpfleger/in m. staatl. Abschluss	2,136	1,567	**3,703**	97.3	95.2	**96.4**	2,078	1,492	**3,570**
	Dorfhelfer/in m. staatl. Abschluss	138	158	**296**	98.6	89.9	**94.0**	136	142	**278**
	Heilerzieher/-in, Heilerziehungspfleger/in	653	2,080	**2,733**	82.8	79.9	**80.6**	541	1,662	**2,203**
	Heilerziehungspflegehelfer/in	200	538	**738**	58.0	70.8	**67.3**	116	381	**497**
care specific degree from university or university of applied sciences	Abschluss einer pflegewissenschaftl. Ausbildung an einer FH oder Uni	557	1,397	**1,954**	60.7	65.7	**64.3**	338	918	**1,256**
other care-specific profession	sonstiger pflegerischer Beruf	19,420	33,681	**53,101**	93.2	92.6	**92.8**	18,099	31,189	**49,288**
Menschen	Fachhauswirtschafter/in für ältere Menschen	1,051	1,575	**2,626**	98.3	92.0	**94.5**	1,033	1,449	**2,482**
other degree in domestic economy	sonstiger hauswirtschaftl. Berufsabschluss	4,014	21,631	**25,645**	97.7	87.3	**88.9**	3,922	18,884	**22,806**
other degrees	sonstiger Berufsabschluss	35,895	121,835	**157,730**	83.9	79.3	**80.3**	30,116	96,615	**126,731**
still in vocational training/without degree	ohne Berufsabschluss/noch in Ausbildung	17,375	109,395	**126,770**	67.4	83.3	**81.1**	11,711	91,126	**102,837**
	Σ	**200,897**	**510,857**	**711,754**	**86.9**	**84.9**	**85.5**	174,579	433,718	**608,297**

Source: Federal Statistical Office (2005a), own calculations.

* We would like to express our gratitude to Dipl. Oec Maike Preuss for her great assistance in drafting this article.

1 See also Pabst and Rothgang, 2000 for the situation before LTCI was introduced.

2 At the state level, the "Laender" (in other words, the 16 provinces with different legislation) are responsible for subsidizing the building and modernization of nursing homes, thus reducing private co-payments and social assistance expenditure

3 The employers' part is tax-free. In order to compensate employers, 15 out of 16 provinces abolished one bank holiday. In Saxony, no bank holiday was abolished and thus employers bear a contribution rate of 0.35 percentage points and employees bear 1.35 percentage points.

4 Of course, there are also less dependent people who do not qualify for LTCI benefits. According to a representative survey conducted in 2002, apart from about 2 million recipients of LTCI benefits, there are about 3 million older people who needed help, mainly with iADLs, but do not qualify for LTCI benefits (Schneekloth and Leven, 2003, p. 7).

5 The term "mini job" in Germany refers to jobs with wages up to 400 € monthly. These jobs are freed of income taxes and social contributions for the employee.

The civilian service is an alternative to compulsory military service, which young men in Germany generally have to accomplish after school (www.zivildienst.org). The voluntary social year is very similar and can also be used as an alternative to the military service, but according to its voluntariness it is open for young women, too (§ 10 ZDG = Zivildienstgesetz).

6 More precisely, the deferral of morbidity for half a year is assumed with every year that life expectancy rises.

7 For detailed discussions see publications of the Robert Bosch Stiftung (1992, 2001) or Landenberger and Ortmann (1999).

8 1. Bericht des Medizinischen Dienstes der Spitzenverbaende der Krankenkassen (MDS) nach § 118 Abs. 4 SGB XI – Qualitaet in der ambulanten und stationaeren Pflege, November 2004.

9 In 1995, a loan of 560 million € was given to the central government, which paid it back without interest in 2002.

10 The proposal assumes a proper adjustment of LTCI benefits of 2 percent per annum, and the mandatory supplementary insurance to fill the gap between this proper benefit and the nominally fixed LTCI benefits. Benefits for the supplementary system can therefore be calculated as:

$B_{sup} = (1{,}02^t - 1) * B_{pub}$,

with B_{sup} denoting the benefits of the supplementary system, B_{pub} the (nominally fixed) benefits of the public system, and t the number of years after the introduction of the supplementary system.

After 35 years, the benefits for the supplementary insurance would be as high as those of the public LTC.

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