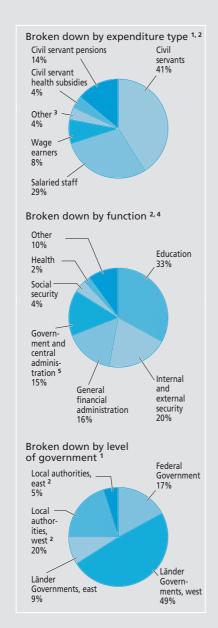
Present and future financial burdens facing the central, regional and local authorities from expenditure on personnel

Expenditure on personnel, comprising expenses for both working and retired employees in the public sector, is one of the major expenditure items in the budgets of the central, regional and local authorities. Together with other operating expenses and investments, staff costs reflect the provision of diverse public services, which range from safeguarding internal and external security to a comprehensive education system. The efforts to enhance the efficiency of public sector operations, which have become a pressing necessity especially in the wake of German unification and in view of the imminent entry into monetary union, must therefore include the personnel sector. In fact, in the past five years the rise in expenditure on personnel has been contained, primarily because staff numbers were reduced for a sustained period for the first time ever. However, an ongoing critical appraisal of staffing requirements in the public sector remains necessary. The increase in staff numbers recorded in the past few decades will be reflected in a sharp rise in the future in the number of civil servants receiving pensions. Fiscal policy makers must take timely account of the expansion of spending on pensions which this will entail in order to avoid facing excessive burdens.

Expenditure on personnel in the central, regional and local authorities



1 In 1997. Core budgets, i.e. central, regional and local authorities excluding special funds and special accounts. — 2 Excluding municipal special-purpose associations. — 3 Expenditure on members of parliament and on staff working in unpaid functions, remuneration of employed persons, etc., and personnel-related operating expenditure. — 4 In 1995. Central, regional and local authorities excluding special funds but including special accounts (except hospitals). — 5 Including foreign affairs.

Deutsche Bundesbank

Overall trends in personnel expenditure from 1992 to 1997

Expenditure on personnel by the Federal Governments, the Länder Governments and the local authorities amounted to slightly more than DM 300 billion in 1997.1 Together with current grants (which primarily include social security transfer payments and subsidies), it forms the largest expenditure item, making up about 29% of the central, regional and local authorities' total spending. Between 1992 and 1997, following fairly sizeable growth, staff costs rose by an annual average of 1.6%, which matched the increase in overall expenditure; however, this rise remained distinctly below nominal overall economic growth (+ 3.4%). In 1997 the ratio of expenditure on personnel to nominal GDP was 8.4%, compared with 9.2% in 1992.

Staff costs constitute significant expenditure item

Expenditure on currently employed staff makes up the lion's share, constituting more than 80 % of staff costs in 1997; this item principally comprises civil servants' remuneration, employees' salaries and workers' wages. Spending on pensions, covering mainly the remuneration of retired civil servants and armed forces personnel, accounted for a share of 14 %. At a rate of 6 %, expenditure on currently employed staff grew somewhat more slowly between 1992 and 1997 than overall spending on personnel (which expanded by slightly more than 8 %); by con-

Expenditure on working and retired employees, ...

¹ This article principally discusses the core budgets, i.e. the central, regional and local authorities excluding the Federal Government's special funds, excluding the municipal special-purpose associations and excluding the special accounts. See also the methodological comments in the Annex.

Expenditure on personnel in the central, regional and local authorities *

	1992	1993	1994	1995	1996	1997	Change in 1996 from 1992	Annual average change
Level of government	in DM bill	ion					in %	
Federal Government	51.5	52.7	52.7	52.9	52.9	52.5	1.9	0.4
Länder Governments	152.7	162.1	166.0	172.7	175.8	176.9	15.8	3.0
West	133.7	139.9	142.5	147.7	149.9	150.6	12.6	2.4
East	19.0	22.2	23.5	25.0	25.9	26.3	38.2	6.7
Local authorities 1	78.1	79.2	78.1	78.9	77.8	76.5	- 2.0	- 0.4
West	58.1	59.8	60.0	61.2	60.8	60.8	4.5	0.9
East	19.9	19.3	18.1	17.7	17.0	15.7	- 21.1	- 4.6
Total	282.3	294.0	296.8	304.6	306.5	305.9	8.4	1.6

Source: Federal Statistical Office. — \star Core budgets, i.e. central, regional and local authorities excluding special

funds and special accounts. — 1 Excluding municipal special-purpose associations.

Deutsche Bundesbank

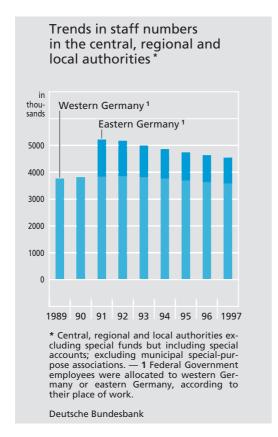
trast, expenditure on civil servants' pensions (including armed forces personnel) increased considerably faster, at 17%. The assistance towards health costs granted mainly to working and retired civil servants and armed forces personnel accounted for 4% of total expenditure on personnel. In 1997 these assistance payments were 32% above the 1992 level, which mainly reflects the rising costs in the health sector.

... broken down by function ...

The education sector accounts for the largest portion of staff costs. In 1995 – more recent figures are not available – one-third alone of personnel expenditure was directly attributable to the school and higher education sector (including kindergartens, other educational facilities, science and research). Internal and external security (i.e. above all the police

and the Federal Armed Forces) also made up a considerable share of expenditure, at 20 %. These sectors have an even greater weighting after taking into account their large share of spending on general finance, an item which makes up 16 % of personnel expenditure and which is incurred primarily by the cost of pensions, assistance towards health costs and other assistance payments for civil servants (including armed forces personnel). The direct share of the government and the central administration² was 15 %. The central, regional and local authorities spent 4 % of their expenditure on personnel on the social security sector and 2 % on the health sector. How-

² This category comprises the ministries and government departments, including foreign affairs, internal administration, administration of the building industry, tax authorities and financial administration.



ever, it must be borne in mind that in this statistical breakdown hospitals are not counted towards the staff costs of the central, regional and local authorities.3

The weight of expenditure on personnel varies strongly at the individual levels of government owing to the fact that the numbers of staff differ according to the areas of responsibilities assigned to them. In 1997, the Länder Governments accounted for the largest share of staff costs, at 58 %, while the share of personnel expenditure in their overall spending was 37 %. Constituting approximately half of their expenditure on personnel, the education sector is by far the most predominant area of responsibility of the Länder Governments, followed by internal security (15%). The local authorities' share in personnel expenditure was one-quarter, with expenditure on administration and education playing a major role. The Federal Government, whose budget is primarily characterised by less labour-intensive redistribution functions, accounted for the smallest share in the staff costs of the central, regional and local authorities, at 17 %. Just under half of this expenditure is accounted for by the defence sector (see the table on page 61 for the trends since 1992, and the table in the Annex on page 78 for a detailed breakdown).

Expenditure on currently employed staff

The trend in expenditure on currently employed staff is determined by various factors, primarily by the fluctuations in staff levels and the increases in negotiated pay rates for salaried staff and wage earners in the public sector, which are mostly adopted for the remuneration of civil servants, too. In addition, the contribution rates for payments to the social security funds are also relevant in the case of salaried staff and wage earners, since the employer has to pay a share. Finally, structural shifts within the group of currently employed staff - above all, changes in the relative weightings of civil servants, salaried staff and wage earners, in the distribution of individual pay grades and in the age structure – likewise have an impact on expenditure.

Between 1992 and 1996, the Federal and Länder Governments and the local authorities cut their staff levels by slightly more than Staff levels markedly reduced for the first time

... and by level of government

62

Determinants

³ If hospitals were included, the health sector's share in personnel expenditure would be 11%.

Trends in staff numbers in the central, regional and local authorities *

	1992 pe	1993	1994	1995	1996	Change in from 1992	
Level of government	in thousan	ds					in %
Federal Government	620	598	573	545	532	- 88	- 14.2
Länder Governments	2,210	2,192	2,212	2,195	2,178	- 32	- 1.4
West	1,707	1,705	1,727	1,716	1,714	7	0.4
East	503	487	485	479	464	- 39	- 7.7
Local authorities 1	1,545	1,416	1,359	1,308	1,255	- 290	- 18.7
West	995	973	963	945	921	- 75	- 7.5
East	549	443	396	363	334	- 215	- 39.2
Total	4,375	4,206	4,144	4,048	3,966	- 409	- 9.4

Source: Federal Statistical Office. — * Core budgets, i.e. central, regional and local authorities excluding special

funds and special accounts. — ${\bf 1}$ Excluding municipal special-purpose associations.

Deutsche Bundesbank

400,000 to just under 4 million; this yielded a cumulative reduction of slightly more than 9%, or 2½% on an annual average, which contributed substantially to containing the rise in staff costs. 4 Thus, for the first time ever public sector jobs have been shed over a longer period of time, after total staff levels had previously risen almost continuously. The staff cuts were undertaken exclusively in the case of full-time employees (-14%), whereas the number of part-time employees rose sharply (+13%). Their share in the public sector labour force was 21% of late, the proportion of women in that figure being 87 %. If part-time employees are counted only as one-half, the reduction in staff numbers per annum was actually ½ percentage point higher.

The local authorities achieved the sharpest reductions in staff numbers (see the table above and, for a more detailed breakdown, the table on page 79 in the Annex). In 1996 they employed 19 % (290,000) fewer people than in 1992, with the cuts in the east German local authorities being markedly sharper than in the western municipalities. ⁵ However, particularly in western Germany, part of the reduction in staff numbers at the municipal level is attributable to the outsourcing of

Trends at the individual levels of government

⁴ The 1997 data on staff levels in the core budgets of the central, regional and local authorities were not yet available when this Report went to press. Preliminary figures indicate that the trend observed up to 1996 tended to continue in 1997.

⁵ The job cuts in the east German local authorities included approximately 70,000 participants in job creation schemes; this instrument of active labour market policy had been employed on a large scale following German unification in order to ease the strain on the east German labour market.

Trends in negotiated pay rates in the public and private sectors

The negotiated pay rates of salaried staff and wage earners in the public sector, as well as civil servants' remuneration (which is based on Officials' Pay Acts rather than pay agreements), increased by a total of 151/2% between 1992 and 1997, or just under 3% on an annual average. These increases in remuneration, which were calculated on the basis of the pay rates statistics of the Deutsche Bundesbank1, were obtained after taking into account non-wage benefits, such as holiday and Christmas bonuses, calculated on a monthly basis. By contrast, during the same period negotiated wages and salaries in the private sector increased by a total of 20 1/2 %, or slightly more than 33/4% per annum, calculated on a monthly basis. Based on monthly pay rates, therefore, the increase in negotiated wages and salaries in the public sector during that period was almost 1 percentage point per annum lower than the rise in negotiated wages and salaries in the private sector. Since at the same time the negotiated number of working hours in trade and industry was cut by ½ percentage point on an annual average - in contrast to the public sector, where in some Länder the number of weekly working hours for civil servants was raised from 38 ½ to 40 hours – the gap between the two sectors comes to almost 11/2 percentage points on an annual average, calculated per manhour worked.

In western and eastern Germany alike the recorded increase in negotiated wage and salary rates in the public sector was slower than in the private sector. In western Germany, the negotiated pay rates in the public sector rose by just under 2% per annum between 1992 and 1997; this compares with 2¾% in the private sector. In eastern Germany, these figures were 6¾% against 9%. A lower increase in

1 For further details, see Deutsche Bundesbank, The trend in agreed pay rates and actual earnings since the mideighties, Monthly Report, August 1994, page 29ff., and Deutsche Bundesbank, The trend in labour income since the beginning of the nineties, Monthly Report, October

Deutsche Bundesbank

Negotiated wage and salary rates in Germany ²

	Public sect	or	Private sector		
		Change		Change	
		from		from	
		previous		previous	
		year		year	
Period	1992=100	in %	1992=100	in %	
1992	100.0		100.0		
1993	106.2	6.2	106.7	6.7	
1994	108.3	1.9	110.1	3.2	
1995	112.8	4.2	115.4	4.7	
1996	114.6	1.6	118.5	2.7	
1997	115.4	0.7	120.3	1.6	
1992–1997 3		2.9		3.8	

negotiated pay rates in the public sector can be observed in earlier periods, too. For example, in the period from 1985 to 1991 the rise in western Germany (both on a monthly and on an hourly basis), at 3½% and 4¼%, respectively, lagged approximately ½ percentage point behind the rises in negotiated wage and salary rates in the private sector.

However, this assessment of negotiated pay rates does not suffice to compare actual labour income. Furthermore, it must be borne in mind that the earnings situation in the private sector in the past few years has been characterised, among other things, by an intensified trend towards eliminating non-wage benefits. The levels of actual wages and salaries of employees in the public and the private sectors are thus likely to have diverged to a markedly lesser extent than those of negotiated pay rates.

1997, page 19ff. — **2** On a monthly basis; including nonwage benefits (holiday and Christmas bonuses and benefits under the German Personal Asset Acquisition Act). — **3** Annual average change in %.

some functions from the core budgets and their transfer to public enterprises; to that extent the trend does not fully reflect a real consolidation. Furthermore, it must be borne in mind that a distinct personnel surplus had existed in the east German local authorities. For example, in 1992 the number of employees in their municipal core budgets was 38 per 1,000 inhabitants, compared with 17 employees in western Germany; by 1996 these figures had moved closer together, at 24 to 15.

The Federal Government reduced its staff numbers by 14% (88,000) between 1992 and 1996, especially in the defence sector, which is by far the biggest employer within the Federal Government. The smallest decrease in staff numbers was recorded at the level of the Länder Governments, which, however, bear the prime responsibility for education and internal security. Between 1992 and 1996 they shed 11/2 % (32,000) of their jobs. These staff cuts occurred exclusively in eastern Germany. At this level of government, too, staff numbers in the new Länder were excessive at the time of unification, albeit to a lesser extent than at the local authority level.

Moderate increase in negotiated pay rates ...

The central, regional and local authorities sought to contain the increase in personnel expenditure not only by shedding jobs but also by keeping increases in wages and salaries moderate. Although negotiated pay rates in the public sector rose by over 6 % in 1993 (the increase in eastern Germany being particularly large), in the years up to 1997 they increased by no more than 2 % on an

Trends in staff numbers in the central, regional and local authorities broken down by status *

ın	unc	ousa	mas

Position	Civil servants	Armed forces pesonnel	Salaried staff	Wage earners
	Western C	Germany 1		
1992 pe	1,351	222	1,101	569
1996	1,396	168	1,063	463
Change Share in 1996	46	- 54	- 38	- 106
in %	45.2	5.4	34.4	15.0
	Eastern G	ermany 1		
1992 pe	56	23	770	284
1996	143	22	558	152
Change Share in 1996	87	- 1	- 212	- 132
in %	16.3	2.6	63.7	17.4

Source: Federal Statistical Office. — * Core budgets, i.e. central, regional and local authorities excluding special funds and special accounts; excluding municipal special-purpose associations. — 1 Federal Government employees were allocated to western Germany or eastern Germany, according to their place of work.

Deutsche Bundesbank

annual average. Between 1992 and 1997, the overall rise in both parts of Germany was distinctly lower than that in the private sector. 6 If actual earnings are considered, however, this difference is likely to have been less pronounced (for further details, see the adjacent box). A cost-inflating factor in the expenditure on salaried staff and wage earners in the public sector, who have to pay social security contributions, was the sharp rise in contribution rates by a total of approximately 5½ percentage points, since the employer has to pay half of these contributions.

... but sharp rise in social security contributions

⁶ In the east German Länder budgets, however, the rise in negotiated pay rates amounting to an annual average of $6\frac{3}{4}$ % resulted in an expansion of personnel costs, even though staff numbers had been reduced distinctly.

Trends in staff numbers in the central, regional and local authorities broken down by career group *

in thousands

Position	Higher service			Lower service
	Western C	Germany 1		
1992 1996	449 447	772 804	1,225 1,076	99 79
Change Share in 1996	- 2	32	- 149	- 20
in %	18.6	33.4	44.7	3.3
	Eastern G	ermany 1		
1992	81	304	490	28
1996	84	250	332	18
Change Share in 1996	3	- 54	- 158	- 10
in %	12.3	36.5	48.5	2.7

Source: Federal Statistical Office. — * Central, regional and local authorities excluding special funds but including special accounts; excluding municipal special-purpose associations. Only full-time civil servants, armed forces personnel and salaried staff. — 1 Federal Government employees were allocated to western Germany or eastern Germany, according to their place of work.

Deutsche Bundesbank

Structural changes in the relative importance of civil servants, ...

Of the different employee groups in the central, regional and local authorities, only the number of civil servants has grown since 1992, whereas jobs have been cut in the armed forces and among salaried staff and wage earners (see the table on page 65). Consequently, the share of civil servants in the public sector labour force grew distinctly nationwide from 32 % to 39 %. The relative share of armed forces personnel declined by almost 1 percentage point to just under 5%, and that of salaried staff fell by 2 percentage points to 41%. Wage earners constituted merely 16% of employees, after their weighting had been 20% four years earlier. At the levels of the Federal and Länder Governments, civil servants (in the case of the Federal Government, including armed forces personnel) make up more than half the total

number of employees; in the case of the local authorities, salaried staff are the predominant group. The share of civil servants in eastern Germany continues to be markedly lower than in the West, notwithstanding the increased entries into civil service status that have occurred during the past few years. In the short run, a higher share of civil servants, considered in isolation, eases the financial burden of the central, regional and local authorities: since public sector employees with civil servant status do not have to pay social security contributions – and hence there is no employer's share to pay either – an increase in the relative share of civil servants results in immediate savings in spending on currently employed staff; however, this is offset by higher expenditure on civil servants' pensions to be borne in the future.

Another structural feature which has had an impact on trends in expenditure is the ongoing shifting of weights within the four career and pay groups into which salaried staff and civil servants are divided away from the lower and intermediate service towards the upper intermediate and higher service, which has been apparent for quite some time. Whereas in 1992 just under 47 % of full-time salaried staff and civil servants in the central. regional and local authorities throughout Germany were in the higher and upper intermediate service, this figure had risen to over 51% by 1996. Furthermore, the abovementioned sharp decline in the share of wage earners in the workforce of the central, regional and local authorities was an additional cost-inflating structural change.

... the distribution of pay grades ...

Trends in staff numbers in the public sector

This article generally relates to the core budgets of the central, regional and local authorities excluding the special funds and special accounts (especially hospitals); in this narrow definition, the number of employees in the public sector totalled slightly more than 4 million in 1996. The public sector as a whole is normally defined much more broadly. In 1996, the Federal and Länder Governments and the local authorities, including the special accounts, recorded 4.6 million employees. The primary public

sector, which also includes the municipal special-purpose associations, the Federal Railways Fund, the Federal/east German railways (up to 1994) and the German Post Office (up to 1995), employed 4.8 million persons. After including the secondary public sector (which comprises, among others, the social security funds), the number of staff employed in the public sector in 1996 was 5.3 million. The comparability of the trend in staff numbers in this broad definition is considerably impeded owing to structural breaks.

Trends in staff numbers in the public sector as a whole

in thousands

Position	1992	1993	1994	1995	1996	1997 р
Primary public sector	6,305	6,115	5,666	4,921	4,814	4,713
Central, regional and local authorities	5,171	4,998	4,866	4,735	4,635	4,543
Federal Government	625	603	578	546	533	526
Länder Governments	2,531	2,511	2,482	2,453	2,430	2,402
Local authorities	2,015	1,884	1,806	1,736	1,672	1,615
Municipal special-purpose associations	58	63	67	66	68	68
Railways/Federal Railways Fund	434	418	129	120	112	102
Post Office	642	639	605	-	-	-
Secondary public sector 1	352	388	428	450	463	451
Total	6,657	6,503	6,094	5,371	5,276	5,164

Source: Federal Statistical Office. — 1 Federal Labour Office, Deutsche Bundesbank, social security funds and sup-

plementary pension funds as well as legally independent public institutions, bodies and foundations.

Deutsche Bundesbank

... and the age pattern

Shifts in the age pattern of staff are a further influence on the trends in expenditure, since remuneration in the public sector depends in part on the employee's age owing to the payment of "seniority increments". In the past few years, this factor is likely to have played a role in western Germany (for which alone data are available). There the share of employees above 55 years rose from 11% in 1992 to 15% in 1996, while the share of 21 to 31 year-olds declined from 23% to slightly more than 19%. This reflects the restrictive recruitment policy during the past few years, together with a sharp growth in public sector staff in earlier decades.

Summary and outlook

The trend in expenditure on currently employed staff during the past five years was primarily characterised by the necessary cuts in excessive staff numbers in eastern Germany, the changed conditions in the defence sector, and the trend towards outsourcing, principally in the local authorities. But other successes were recorded in the efforts to achieve budgetary consolidation by reversing the apparently unstoppable trend towards recruiting new personnel, which had been evident prior to unification, and by keeping the increases in negotiated pay rates in the public sector within reasonable bounds. However, the sharp rise in social security contribution rates had an adverse effect. Against the background of the continuing need for consolidation, the central, regional and local authorities are planning to further reduce staff numbers in the future. In addition, public employers' priority is to continue to pursue the moderate pay rate policy. At the level of local authorities, in particular, it can be expected that outsourcing from the core budgets, as observed in the past few years, will tend to continue.

Expenditure on former employees

In addition to expenditure on currently employed staff, expenses on retired staff are playing an increasingly significant role, too. In conformity with the principle of paying a "life-long salary", the central, regional and local authorities pay for the non-contributory pensions of civil servants and armed forces personnel, in particular, out of their current budgets. The trend in expenditure on civil servant pensions is determined mainly by the number of recipients (including surviving dependants) and the increases in the pension level, which are based on civil servants' remuneration. The number of persons receiving civil servant pensions is primarily the outcome of the recruitment policy of earlier years, but it also depends on the average age at which beneficiaries actually start receiving their pension as well as on life expectancy. Furthermore, the changes in the employment structure of currently employed staff which occurred during the previous years play a role, too.

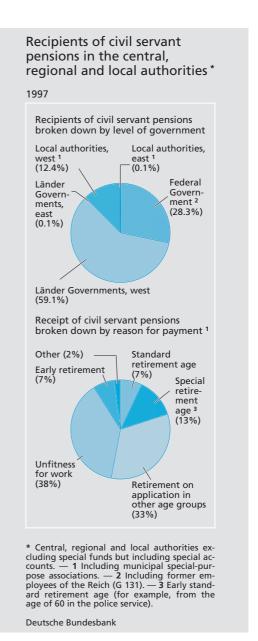
In 1997 the central, regional and local authorities' total expenditure on pensions amounted to DM 43 billion. The expenditure on retired civil servants and regular armed forces personnel and the former employees

Determinants of expenditure on pensions

Continuous increase in pension payments and the number of recipients

of the Reich (G 131)7, to whom the following comments on structural developments relate, amounted to DM 39 billion, compared with DM 33 billion in 1992.8 In eastern Germany, such pension payments play virtually no role at all at the moment. The bulk (almost twothirds) was attributable to the west German Länder budgets. The Federal Government accounted for just over one-quarter of the payments; slightly more than two-fifths of this sum was made up of pensions paid to retired regular soldiers. Payments to former employees of the Reich were significant, too. However, they have been declining markedly. Some 12% of pension payments was borne by west German local authorities. According to preliminary figures for 1997, the number of persons receiving pension payments has risen by 9% since 1992, to reach about 740,000 latterly. In addition, there are 85,000 beneficiaries under the G 131 clause, although their number has declined by onequarter since 1992.

Reasons for claiming pensions In 1997 the central, regional and local authorities recorded slightly more than 32,000 new civil servant pensioners. It is remarkable that only one-half of these additional pensioners retired after reaching the regular age threshold; no more than 7% retired at the standard retirement age of 65. By contrast, 38% of new pensioners ceased employment because they were incapacitated, and 7% took the option of early retirement. While that was the average figure for the central, regional and local authorities as a whole, early retirement features much more prominently at the Federal Government level, especially as two-thirds of military pension recipi-



7 The beneficiaries as defined by the Act Regulating the Legal Status of Persons Coming within the Provisions of Article 131 of the Basic Law (G 131) include the former civil servants who were not re-employed after the Second World War, regular soldiers of the former Wehrmacht, leaders of the Reich Labour Service and other employees receiving civil servant pensions plus their surviving dependants.

8 The other expenditure on pensions amounting to DM 4 billion mainly comprises payments by local authorities under the supplementary pension schemes for salaried staff and wage earners in the public sector and the pension payments to temporary soldiers.

Trends in the number of pension recipients of the central, regional and local authorities according to the forecast made in the Pension Report *

in thousands

Year	Total	Federal Govern- ment 1	Länder Govern- ments 2	Local author- ities ² , ³
1995	812	235	474	103
2000	866	220	543	103
2010	1,041	193	735	113
2020	1,270	188	952	130
2030	1,193	176	882	135
2040	1,060	167	762	131

Source: Federal Government's Pension Report, 1996. — * Central, regional and local authorities excluding special funds but including special accounts. — 1 Including regular armed forces personnel and former employees of the Reich (G 131). — 2 Western Germany. — 3 Including municipal special-purpose associations.

Deutsche Bundesbank

ents latterly retired for this reason. In the case of Länder Governments and local authorities, on the other hand, early retirement has virtually no significance at all, whereas incapacity figures very largely, at over 40 % in both cases. The average retirement age was 58.8 years (excluding armed forces personnel; including regular soldiers, it was 58.4 years).

Significant future increase in the number of pensioners ...

Expenditure on pensions will gain particular significance for the future trend in expenditure on personnel, since the number of retired employees in the public sector will increase considerably. On the one hand, this will have an effect on the statutory pension insurance scheme, under which salaried staff and wage earners in the public sector are insured. On the other hand, the budgets of the various levels of government will be bur-

dened directly by pension payments to former civil servants and soldiers and by the expenditure on the supplementary pension funds for salaried staff and wage earners, which have so far been financed by the employers, mostly through an unfunded system. According to the Federal Government's Pension Report, which was presented for the first time in the autumn of 1996, the number of pension recipients of the central, regional and local authorities will increase by about 60%, from slightly more than 0.8 million in 1995 to approximately 1.3 million in the year 2023. Only after that date will this number tail off again, although it is still expected to be almost 1.1 million in 2040. The least favourable forecasts concern the Länder Governments (for further details, see the adjacent table). This is mainly the result of the steep increase in the number of civil servants in the seventies, which occurred especially in the education and internal security sectors; in the mid-nineties, a total of two-thirds of civil servants at the Länder level were employed in these two sectors.

The trends in the number of pensioners is reflected in the level of expenditure on pensions to be expected in the future. According to the forecast contained in the Pension Report, the expenditure of the central, regional and local authorities on pensions will increase continuously to reach about DM 160 billion in 2040, after it had amounted to DM 34 billion in 1993, the base year of the Pension

... and in expenditure on pensions

Report.⁹ In relation to GDP, the "pension ratio" will increase from 1.20% in 1993 to 1.32% in 2008 and 1.65% between 2020 and 2022; subsequently, it will fall again to 1.24% in the year 2040.

Particular burden on west German Länder budgets In line with the distribution of pensioners at the individual levels of government, expenditure on pensions will particularly burden west German Länder budgets. According to the projections in the Pension Report, the Länder budgets' ratio of expenditure on pensions to tax receipts will increase from just under 9 1/2 % in the mid-nineties to 15 1/2 % in 2020 and will start to decline only in later years to just over 11% in 2040. By contrast, at the level of the Federal Government this ratio will recede during the period under review; in the case of the local authorities, it will initially decline up to 2008 before subsequently increasing up to 2025 (see adjacent table for further details).

Future burden on east German Länder budgets distinctly lower The budget situation in the east German Länder has been strained to a lesser extent up to now. They incur expenditure on pensions only on a very small scale at the moment, since pension payments to former public sector employees there are largely covered by the statutory pension insurance scheme. 10 In addition, as has been shown above, the percentage of civil servants employed in the new Länder has so far been well below the level in western Germany. Thus expenditure on pensions will increase sharply in east German Länder budgets, too, once the civil servants there start retiring. However, working on the assumption that the share of civil servants within the eastern public sector will remain Expenditure on pensions in relation to tax receipts according to the forecast in the Pension Report *

in %

Year	Total	Federal Govern- ment 1	Länder Govern- ments 2	Local author- ities 2, 3
1995	5.3	2.5	9.3	5.6
2000	5.4	2.5	9.2	5.1
2010	6.7	2.2	12.7	5.8
2020	7.9	2.1	15.5	6.5
2030	6.8	1.8	13.2	6.5
2040	5.9	1.7	11.2	6.1

Source: Federal Government's Pension Report, 1996. — * Central, regional and local authorities excluding special funds but including special accounts. — 1 Including regular armed forces personnel and former employees of the Reich (G 131). — 2 Western Germany. — 3 Including municipal special-purpose associations.

Deutsche Bundesbank

below the west German level in the longer term, the burden on the budgets connected with these retirements will be far lower than in western Germany. Hence the public sector's pension payments in eastern Germany will be financed primarily through the statutory pension insurance scheme and the supplementary pension funds for public sector employees.¹¹

⁹ The Federal Government's Pension Report contains three variants of forecasts up to 2008. This article is based on the middle variant, on which the projection up to 2040 has also been based.

¹⁰ In connection with the closed special pension schemes of the former GDR, payments to pensioners and, above all, to the social security funds, are made via the Federal budget. A large part of these payments is reimbursed to the Federal Government by the east German Länder. The payments made in this connection are usually not recorded in the context of personnel expenditure.

¹¹ At present, the contribution rate to the supplementary pension funds for public sector employees in eastern Germany is 1%; actual expenditure has so far been incurred only to a small extent.

Uncertainties of the forecast

As is the case with all long-term forecasts, the Pension Report's projections are subject to a major margin of uncertainty. Risks are inherent especially in respect of the future annual average increases in remuneration and pensions. According to the Pension Report's assumptions, by 2040 these annual adjustments will be about 1/2 percentage point below the rise in overall gross wages and salaries per employee in the economy as a whole. As a consequence, by 2040 the level of public sector wages and salaries would decline by more than one-fifth in relation to the private sector. There are also some uncertainties with regard to pensioners' future life expectancy, as the Pension Report assumes no further increase after 2001. On the other hand, the positive effect of the staff cuts being undertaken at present was not taken into account at all, and the cost-curbing measures taken in the past few years were included only incompletely. 12

Measures to contain pension expenditure

Coinciding with restrictions on pensions in the statutory pension insurance scheme, several measures have been taken in the past few years in order to minimise the additional financial strain imposed by the growing expenditure on civil servant pensions. These measures are aimed at requiring civil servants to make a contribution of their own to meeting the growing financial burden, primarily by limiting the level of pension payments and raising the average age at which civil servants claim pensions. The latter will afford particular relief by effectively extending the number of years worked by recipients of such pensions and shortening the duration of pension payments. Owing to the reduction and flattening of the pension entitlements acquired per year worked, which was introduced in 1992, it will take 40 years, instead of 35, for a civil servant to attain the maximum pension rate of 75% of the pay received during the last few years of his or her working life. Although the standard retirement age of 65 years was retained, as of mid-1997 the age for retirement on application was raised from 62 to 63; in addition, pension deductions, which will amount to 3.6% per year from 2003, will apply in future for civil servants who make use of this possibility to retire early. Furthermore, it was decided, among other things, to encourage the rehabilitation of incapacitated civil servants and their reemployment in a different function to a greater extent than before.

Furthermore, the recent adoption of the 1998 Pension Reform Act constitutes a new approach to facilitating the financing of the sharp increase in pension expenditure. The Federal and Länder Governments (including the local authorities governed by them) will be obliged to build up pension reserves in future years. Thus, the civil servant pension system, which up to now has been completely unfunded, will be supplemented by a temporary funded component designed to lessen the mounting financial burden of pension payments. This pension reserve is to be financed by lessening the increases in remuneration and pensions by an average of 0.2 % per annum from 1999 to 2013, thus reducing

Building-up of pension reserves

¹² Färber, G. (Zur Entwicklung der Personal- und Versorgungsausgaben im öffentlichen Dienst, WSI Mitteilungen 6/1997, pages 426-438) draws a far gloomier picture than the Pension Report.

the level of remuneration and pensions by a cumulative total of about 3 %. The resources saved will be transferred to special funds to be established at the levels of the Federal and the Länder Governments. The use of these funds will be restricted to financing future expenditure on pensions required from 2014 onwards.¹³

Additional burdens from the supplementary pension funds for salaried staff and wage earners ... In addition to the pension schemes for civil servants and soldiers, the supplementary pension funds for salaried staff and wage earners in the public sector will also have to bear substantial additional burdens in the future. According to the Pension Report, the expenditure to be incurred by the supplementary pension scheme for employees of the Federal and the Länder Governments (VBL) and the association of the municipal and clerical supplementary pension funds will increase continuously from almost DM 10 billion in 1995 to about DM 42 billion in 2040.14 As a result, the ratio of expenditure incurred by the public sector supplementary pension funds to GDP will increase from 0.31% in 1996 to 0.45% in the year 2020 and will decrease thereafter to 0.32 % in 2040. The most recent wage agreement for the public sector provides for the raising of the contribution rate to the VBL, which has to be borne by the employer, from 4.8 % to 5.2 % from the middle of this year; however, one-half of any further increases which may become necessary in the future will have to be financed by the employee. This will place part of the burden arising from the sharp increase in expenditure on supplementary pensions that is expected to occur in the future on to public sector salaried staff and wage earners themselves and so ease the burden on government budgets. 15

The budgets of the central, regional and local authorities are also likely to be burdened by a substantial increase in assistance payments towards health costs to retired civil servants. The sharp rise in the number of pension recipients will be further aggravated by the fact that the *per capita* cost of these assistance payments for pension recipients is markedly higher than for working civil servants. In the period from 1992 to 1997 the medical assistance payments to pension recipients increased by about one-half, while the number of pension recipients – as indicated above – increased only by 9 %.

... and growing health care assistance payments to civil servants

Outlook

A well-functioning public sector is of great importance for Germany's locational attractiveness and its future economic development. For example, the expenditure on education, which, together with spending on internal and external security, accounts for almost two-thirds of personnel expenditure, makes a major contribution towards the creation of

Continued containment of expenditure on personnel required

¹³ The special fund "Federal pension fund" will be administered by the Federal Ministry of the Interior, which, in agreement with the Federal Ministry of Finance, will issue the regulations governing investment. The investment of these funds in accordance with these regulations will be assigned to the Deutsche Bundesbank. The Länder Governments will themselves decide the details of their special funds.

¹⁴ This sharp increase concerns not only the central, regional and local authorities but also other employers, such as the social security funds and the churches.

¹⁵ Public sector employees with non-civil servant status had to co-finance their supplementary pensions once before, namely up to the middle of 1973.

human capital and therefore constitutes an important investment in the country's future. However, in view of the fact that the government spending ratio in Germany has to be reduced in order to cut the public deficits and to create leeway to lower the high burden of taxes and social security contributions, an ongoing critical assessment of public sector personnel requirements is essential. This is even more important given that staffing requirements will have a substantial impact on long-term trends in public sector budgets owing to the long-term employment contracts and the pension claims resulting therefrom.

Focusing on the public sector's core functions ... In respect of public sector staffing policy and public sector operations as a whole, two strategies, in particular, appear to be promising. The first one relates to the objective of limiting the state to its core functions by restricting its activities to operations that the private sector can carry out either not at all or only insufficiently. The disposals of public participations in enterprises and the privatisation of activities previously belonging to the public sector's range of responsibilities - especially at the local authority level - are a step in the right direction. Care must be taken, however, to ensure that the entrepreneurial responsibility, too, is transferred into private hands, and that privatisation is not restricted to an outsourcing of activities from the core budgets that merely contracts the public authorities' balance sheet.

... and enhancing public sector efficiency The second major task is to enhance the efficiency of public sector services. This requires a higher degree of flexibility and the stepping-up of incentives in the public sector. In

addition, curtailing the number of regulations, streamlining administrative procedures and simplifying the tax and transfer payment systems could lead to lower public sector staffing requirements.

As far as the trend in public sector earnings and its structure are concerned, a fundamental gearing to private sector incomes is essential to enable the public sector to attract well qualified employees in the future, too. On the other hand, the differing employment conditions in the public and private sectors could justify a reassessment of pay levels. For example, in times of high unemployment the higher degree of job security in the public sector must be considered to be a major benefit, which makes relatively moderate pay increases appear appropriate.

... and the structure of the workforce

Trend in public sector

earnings ...

The future structure of the public sector workforce will be primarily determined by the range of tasks it is required to perform. For the purpose of analysing the cost structure of the public sector, comparisons are sometimes drawn between civil servants, on the one hand, and salaried staff and wage earners, on the other. Such a comparison of costs is problematical, especially because it is very difficult to express the different nature of employment contracts of civil servants and employees with non-civil servant status in monetary terms. ¹⁶ If costs are to be compared, a long-term monitoring of budgetary burdens, including pension payments, is required. After

¹⁶ Various studies carried out on this subject have produced different results. See, among others: *Die Präsidentin des Bundesrechnungshofes als Bundesbeauftragte für Wirtschaftlichkeit in der Verwaltung: Beamte oder Arbeitnehmer,* Stuttgart et al., 1996.

all, from an overall economic point of view, it is not the cost calculation of the individual central, regional or local authority that is decisive. Rather, it is necessary to take into account the total payment flows between the state and its employees. If, for example, the central, regional and local authorities were able to achieve cost cuts by making a greater percentage of their employees civil servants, but only at the expense of the social security funds, the financial burdens would merely be shifted from tax payers to payers of social security contributions; on balance, this would not lead to any easing of the burden either for the government or the individual citizen.

Particular need for adjustments in civil servant pensions The sharp increase in pension payments to civil servants will have a particularly severe impact in the future. Some efforts have recently been made to defuse the associated problems. In addition to containing payments, the building-up of pension reserves will contribute towards alleviating the burden arising from today's public sector operations. In this way, part of the foreseeable increase in expenditure will be offset by assets that are being generated by forgoing current income. This new demand on working and retired civil servants to make a certain contribution towards their own pensions is justified inas-

much as salaried staff and wage earners, who pay for their pensions through their contributions to the statutory pension insurance scheme, are also being required to shoulder a heavier part of the fiscal burden resulting from the deteriorating demographic pattern of the population as a whole through higher contribution rates and a decreasing level of pension payments over time. The shrinking size of the working population will narrow the financing base not only of the statutory pension insurance fund but also, ultimately, of civil servants' pensions, too, since this diminishes not only social security contribution receipts but tax revenue as well. However, setting up dedicated reserve funds for the payment of civil servant pensions will constitute an improvement of the situation only if the public authorities refrain from making discretionary use of the accrued assets for general budget financing purposes. This precludes both the premature release of the reserves and an expansion of the core budget deficits in anticipation of cashing in on the existing assets. Thus the building-up of reserves for civil servant pensions is meaningful only if it results in a corresponding reduction in current public sector deficits and hence increases public sector saving.

Annex

Methodological comments

The figures contained in this article relate as far as possible to the trends in the core budgets of the central, regional and local authorities observed during the period from 1992 to 1997. However, this was not always possible owing to the differing availability and different definitions of some statistical sources, although this did not affect the validity of the main conclusions. The data on personnel

expenditure are generally based on the Quarterly cash results of public budgets (Federal Statistical Office, Subject-Matter Series 14, Series 2). The year 1992 was chosen as the reference year, since that was the first time a more or less full set of data was available on eastern Germany, too. The figures relate to the core budgets of the Federal Government (excluding its special funds), the Länder Governments and the local authorities (including the local authority associations, but excluding the municipal special-purpose associations); unless stated otherwise, the figures on western Germany include Berlin as a whole. The special accounts – i. e. all the units and enterprises that have been outsourced from the core budgets and keep commercial accounts - are not included in the quarterly cash results. The special accounts comprise, for example, publicly owned enterprises and, above all, hospitals. Allocating expenditure on personnel to the individual functions is possible only on the basis of the Accounting results of the public overall budget (Federal Statistical Office, Subject-Matter Series 14, Series 3.1), which, however, are currently available only up to 1995. Those figures include the special accounts - albeit excluding hospitals.

The figures on trends in staff numbers are based on the Public service personnel statistics (Federal Statistical Office, Subject-Matter Series 14, Series 6). The latest data available in the deeper classification required for this breakdown are those as at June 30, 1996. As is the case with expenditure on personnel, the data generally relate to the central, regional and local authorities' core budgets (excluding special funds and special accounts, including local authority associations, excluding municipal special-purpose associations) where the absolute number of employees is shown, i.e. part-time jobs are not converted into full-time equivalents.

However, the special accounts are included in the trends in staff numbers broken down by the career groups of civil servants and salaried staff; furthermore, only data on full-time employees are available for Germany as a whole. The special accounts are also included in the longer-term trends in staff numbers.

As is the case with expenditure on personnel, the data on pension payments were likewise obtained from the quarterly cash results. The figures illustrating the trend in the number of pension recipients are based on the records in the statistics for Public service pensioners (Federal Statistical Office, Subject-Matter Series 14, Series 6.1). The latest (preliminary) data that are available cover the year 1997. The data on pension recipients include both municipal special-purpose associations and the special accounts.

As far as employees' status is concerned, judges are generally also counted as civil servants. Persons performing their military service (or community work as a civilian alternative) are included in the expenditure on personnel under civil servants' remuneration; however, they are not included in the data on the trends in staff figures. Armed forces personnel generally include regular and temporary soldiers; the figures on pension recipients, however, refer solely to regular soldiers.

The forecast contained in the Federal Government's Pension Report, stretching up to 2040, is generally based on the actual data on pension recipients and pension payments for former civil servants, regular soldiers and former employees of the Reich as at January 1994, the number of working employees as at June 30, 1993 as well as the data on retirement in 1993. The figures relate to the Federal Government, excluding the special

funds, and the Länder Governments (including West Berlin) and the local authorities (including municipal special-purpose associations) of western Germany, including the special accounts. The projections took the statutory regulations approved up to the end of 1994 essentially into account. It was therefore assumed that the average age at which civil servants actually claim their pensions will increase in comparison with the base year

1993, owing to various measures already taken that will have an effect in the course of time. It has been assumed that life expectancy (making no distinction between the public sector and the population as a whole in this respect) will increase up to 2001; after that date, no further increase is expected. The forecast assumed a constant number of employees in the central, regional and local authorities over time.

The tables accompanying this article appear on the following pages.

Expenditure on personnel in the central, regional and local authorities in 1995 broken down by function *

			l ändar Ca		l a sal avith	auitiaa 1
			Lander Go	vernments	Local auth	orities 1
		Federal				
		Govern-				
Functions	Total	ment	West	East	West	East
	in DM mill	ion				
Government/central administration 2	46,796	8,687	16,057	3,192	14,393	4,467
Internal and external security	62,663	27,502	24,768	4,012	4,918	1,463
Defence	24,666	24,666	_	_	_	_
Public security and law and order	26,455	2,446	15,018	2,610	4,918	1,463
Legal protection	11,542	390	9,750	1,402		
Education	106,104	1,211	73,434	16,149	9,858	5,452
Schools/pre-school education	72,758		47,269	11,708	8,624	5 157
Higher education	29,177	15	24,957	4,205		_
Promotion of education	1,875	17	418	60	1,105	275
Science and research	2,294	1,179	790	176	129	20
Social security	13,976	402	4,577	365	6,821	1,811
Health/sports/recreation	7,370	167	1,556	373	4,014	1,260
Others	30,392	2,231	8,330	2,418	13,994	3,419
Cultural affairs	5,018		1,225	361	2,404	1,028
Housing/regional planning/municipal services	12,062	_	1,426	268	8,549	1,819
Food/agriculture/forestry	1,972	42	1,404	407	79	40
Energy and water supply/trade/services	1,799	154	970	55	384	236
Transport and communications	6,309	1,974	1,921	535	1,703	176
Public enterprises whose accounts form an integral	,	,			,	
part of the accounts of central, regional and local						
authorities	3,051	61	1,379	792	764	55
General real property and capital assets/	,					
special funds	181	_	5	_	111	65
General finance	51,109	12,731	30,903	135	7,254	86
Total	318,415	52,933	159,628	26,646	61,251	17,957
Total	310,413	32,333	133,020	20,040	01,231	17,557
	Percentage	e of total ex	penditure			
Government/central administration 2	14.7	16.4	10.1	12.0	23.5	24.9
Internal and external security	19.7	52.0	15.5	15.1	8.0	8.1
Defence	7.7	46.6	_	_	_	_
Public security and law and order	8.3	4.6	9.4	9.8	8.0	8.1
Legal protection	3.6	0.7	6.1	5.3	_	_
Education	33.3	2.3	46.0	60.6	16.1	30.4
Schools/pre-school education	22.9	_	29.6	43.9	14.1	28.7
Higher education	9.2	0.0	15.6	15.8	-	_
Promotion of education	0.6	0.0	0.3	0.2	1.8	1.5
Science and research	0.7	2.2	0.5	0.7	0.2	0.1
Social security	4.4	0.8	2.9	1.4	11.1	10.1
Health/sports/recreation	2.3	0.3	1.0	1.4	6.6	7.0
Others	9.5	4.2	5.2	9.1	22.8	19.0
Cultural affairs	1.6	-	0.8	1.4	3.9	5.7
Housing/regional planning/ municipal services	3.8	-	0.9	1.0	14.0	10.1
Food/agriculture/forestry	0.6	0.1	0.9	1.5	0.1	0.2
Energy and water supply/trade/services	0.6	0.3	0.6	0.2	0.6	1.3
Transport and communications	2.0	3.7	1.2	2.0	2.8	1.0
Public enterprises whose accounts form an integral						
part of the accounts of central, regional and local						
authorities	1.0	0.1	0.9	3.0	1.2	0.3
General real property and capital assets/						
special funds	0.1	_	0.0	-	0.2	0.4
General finance	16.1	24.1	19.4	0.5	11.8	0.5
Total	100	100	100	100	100	100

Source: Federal Statistical Office. — \star Central, regional and local authorities excluding special funds but including spe-

cial accounts (except hospitals). — 1 Excluding municipal special-purpose associations. — 2 Including foreign affairs.

Deutsche Bundesbank

Trends in staff numbers broken down by central, regional and local authority and by function *

in thousands

in thousands									
		Govern-							
		ment/							
		central							
		adminis-		Public	Legal pro-	Educa-	Social		
Position	Total	tration 1	Defence	security	tection	tion 2	security	Health	Others 3
Central, regional									
and local									
and local authorities 4									
1992 pe	6 4,375.4	717 2	422.0	424.4	100 1	1 504 5	272.0	162.7	467.2
1992 pe 1993		717.2 710.9	432.9 405.5	424.4 435.6	186.1 190.6	1,594.5	272.9 268.0	162.7 145.9	467.3 441.3
	6 4,206.3					1,507.5			
1994	4,144.4	731.5	378.1	446.4	195.8	1,529.2	262.1	149.7	451.5
1995 1996	4,048.3 3,965.9	713.4 700.8	349.9 339.8	449.7 450.1	197.2 196.5	1,502.5 1,498.2	259.3 225.1	144.1 138.7	432.1 416.7
Share in 1996	3,365.9	/00.8	333.0	450.1	190.5	1,490.2	223.1	130.7	410.7
in %	100	17.7	8.6	11.4	5.0	37.8	5.7	3.5	10.5
	100	17.7	0.0	11.4	3.0	37.0	3.7	3.5	10.5
Federal									
Government	620.4		422.0		١	45.5		١	240
1992 pe	620.4	93.7	432.9	34.8	4.9	15.3	3.0	1.8	34.0
1993	598.2	90.9	405.5	38.0	5.0	18.3	4.7	1.7	34.2
1994	573.5	90.0	378.1	42.6	4.8	18.2	6.2	1.7	31.8
1995	545.4	88.3	349.9	44.6	4.7	17.4	6.0	2.1	32.2
1996	532.5	87.7	339.8	44.9	4.6	17.0	4.8	2.1	31.5
Share in 1996	400	465	63.0	١		١ ,,		١	
in %	100	16.5	63.8	8.4	0.9	3.2	0.9	0.4	5.9
Länder Govern-									
ments, west									
1992 pe	1,707.3	248.7	-	229.1	162.9	854.1	61.1	24.7	126.6
1993	1,705.2	249.0	_	231.1	163.4	856.2	59.5	23.0	123.0
1994	1,727.1	254.0	_	239.7	165.8	864.2	59.8	23.2	120.5
1995	1,715.9	250.7	-	240.3	166.2	867.1	58.0	23.8	109.8
1996	1,714.0	246.3	-	241.2	163.9	879.2	55.3	21.8	106.4
Share in 1996					l		l		
in %	100	14.4	-	14.1	9.6	51.3	3.2	1.3	6.2
Länder Govern-									
ments, east									
1992 pe	503.1	50.5	-	56.0	18.2	288.6	32.9	14.5	42.5
1993	486.8	59.4	-	60.8	22.3	254.8	31.9	12.7	44.9
1994	485.3	62.0	-	57.5	25.2	255.8	28.5	11.2	45.1
1995	479.2	62.4	_	56.9	26.3	255.2	25.5	10.4	42.6
1996	464.4	62.6	-	56.5	28.0	242.6	23.1	10.5	41.1
Share in 1996									
in %	100	13.5	-	12.2	6.0	52.2	5.0	2.3	8.9
Local autorities,									
west 5									
1992 pe	995.5	199.8	-	84.5	-	186.9	181.9	84.1	258.2
1993	973.4	194.7	-	85.7	-	182.3	187.2	78.2	245.2
1994	962.7	195.7		85.4	_	175.9	190.9	76.0	238.7
1995	945.2	188.8	-	85.4	_	168.5	194.3	72.5	235.9
1996	920.9	184.7	_	85.7	_	162.3	188.0	69.8	230.3
Share in 1996									
in %	100	20.1	-	9.3	_	17.6	20.4	7.6	25.0
Local authorities,									
east 5									
1992 pe	6 549.1	66.9	-	21.4	-	78.2	165.4	37.6	62.2
1993	6 442.8	58.7	-	21.8	-	63.2	117.5	29.1	51.7
1994	395.9	70.9	-	24.1	-	66.4	125.5	35.5	73.5
1995	362.6	65.2	-	25.6	-	61.7	108.0	33.0	69.1
1996	334.1	62.9	-	25.5	-	58.0	93.0	31.2	63.6
Share in 1996									
in %	100	18.8		7.6	I –	17.3	27.8	9.3	19.0

Source: Federal Statistical Office. — * Core budgets, i.e. central, regional and local authorities excluding special funds and special accounts. — 1 Including foreign affairs. — 2 Including cultural affairs. — 3 Housing, regional planning and municipal services; food, agriculture and forestry; energy and water supply, trade and services; transport and communications; public enterprises whose accounts form an integral part of the accounts of central, regional and

local authorities. — 4 The number of staff allocated to the various functions deviates from the total of the individual levels of government, since the breakdown used by the local authorities differs somewhat from that used by the other levels of government, making some reallocations necessary. — 5 Excluding municipal special-purpose associations. — 6 Including unclassifiable personnel.

Deutsche Bundesbank