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How Germany shouldered the fiscal burden of the unification

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Kiel Working Paper No. 851

**How Germany Shouldered the
Fiscal Burden of the Unification***

by

Alfred Boss



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Abstract

In the process of the German unification and especially after the formal unification in October 1990, Eastern Germany was supported by West Germany by a lot of measures. The main purposes were to improve the infrastructure, to stimulate private investment and to alleviate the adjustment process for the population by transfers to private households.

The paper describes the measures in some detail. Many of these were decided upon in an ad hoc manner, in some cases experience (partly from the period of reconstruction in West Germany after World War II) was available. The methods of financing are described, too. Emphasis is laid on the policy in the field of social insurance. Finally, it is tried to draw some conclusions which might be helpful in case of a unification of South and North Korea.

JEL Classification: H 59, H 79

Keywords: Intergovernmental Relations, Debt, Social Security

I. Measures to Support East Germany

1. The Starting Point

West Germany was in a relatively good economic position when the socialist economy of East Germany collapsed. Economic growth had accelerated in the end of the eighties (3.5 percent p.a. for 1987 to 1989), inflation (of about 2.5 percent) was not really a problem, employment had increased for some years and was about one million higher than in the early eighties.

Not unrelated to this, the situation of the public sector was not at all uncomfortable. The ratio of government expenditures to GDP had declined in the course of the eighties (Table 1),

Table 1 — Government Expenditures^a, Taxes, Contributions to Social Security, Budget Balance and Public Sector Debt, 1950–1990 (in relation to GDP)

	Expenditures	Taxes	Contributions to social security	Other Revenues	Balance	Public sector debt ^b
1950	31.6	21.3	8.7	2.2	0.6	21.0
1960	32.9	23.0	10.3	2.6	3.0	17.4
1970	39.1	24.0	12.6	2.7	0.2	18.6
1980	49.0	25.9	16.9	3.3	-2.9	31.8
1981	49.9	25.2	17.5	3.5	-3.7	35.5
1982	50.1	24.9	17.9	4.0	-3.3	38.8
1983	48.9	24.9	17.4	4.0	-2.6	40.3
1984	48.5	25.1	17.4	4.1	-1.9	41.0
1985	48.0	25.2	17.6	4.0	-1.2	41.7
1986	47.4	24.6	17.5	4.0	-1.3	41.6
1987	47.7	24.7	17.6	3.5	-1.9	42.7
1988	47.3	24.5	17.5	3.1	-2.2	43.0
1989	45.8	25.2	17.2	3.5	0.1	41.8
1990	46.1	23.6	16.9	3.5	-2.1	43.4

^aNational Income and Product Accounts (NIPA), including Treuhandanstalt. — ^bAt the end of the year.

Source: Statistisches Bundesamt (1997d), Sachverständigenrat (1996), own calculations.

taxes had been cut significantly in January 1990; the public sector's budget deficit was small, actually there was a surplus in 1989. The public sector's debt in relation to GDP was slightly above 40 percent in 1989.

Because of the good shape of the public sector at the end of the eighties, it seemed to be unproblematic to support East Germany (and, by the way, to share a part of the fiscal burden of the Gulf war and to help the Russians in bringing back their soldiers living in East Germany). This seemed to be the more the case because nearly everybody expected a strong economic recovery of East Germany.

2. The German Economic, Monetary and Social Union (GEMSU) and the Consequences for Fiscal Policy

The treaty on the economic, monetary and social union agreed upon in May 1990 meant an economic capitulation of the GDR government. The "price" that East Germany had to pay for financial support from West Germany was that a market economy had to be definitely established. The D-Mark was to be introduced in East Germany. Fiscal policy in the East had to be restructured in a way that is in line with a market economy, the West German rules of the budgetary process had to be adopted by the East German government (Grossekettler 1996).

Assuming that the GDR will continue to exist, in May 1990 the GDR public sector's borrowing requirement was limited to DM 10 billion for 1990 and to DM 14 billion for 1991 (Grossekettler 1996). In the course of 1990, the West German federal government decided that the GDR should receive additional transfers (DM 22 billion in 1990 resp. 35 billion in 1991) in order to be able to finance public expenditures in the East. Social insurance in the East was subsidized by roughly DM 6 billion in the end of 1990 (BMF *Finanzbericht* 1992).

3. Financing the Treuhandanstalt's Activities

The privatization agency Treuhandanstalt founded in March 1990 (Schmidt 1997) was allowed to borrow in the capital market DM 7 billion in 1990 and DM 10 billion in 1991 (0.4 percent of West Germany's GDP in 1991). Some time later, the Treuhandanstalt was given the right to raise additional capital market funds in the range of DM 25 billion and — in order to avoid bankruptcy of the state-owned firms — to take over liabilities of the socialist firms as well as to guarantee for private loans given to them. Finally, the Treuhandanstalt was allowed to raise about DM 30 billion in each of the years 1992 to 1994. The financial result of the Treuhandanstalt's activities was a liability of DM 205 billion at the end of 1994 (Table 2); there will be an additional burden resulting from the activities of the institutions that succeeded the Treuhandanstalt.

Table 2 — Expenditures, Revenues and Debt of the Treuhandanstalt, 1990–1994 (billion DM)

	Second half of 1990	1991	1992	1993	1994
Expenditures	5.89	27.62	41.20	46.64	46.61
Revenues	1.60	7.74	11.60	8.53	9.53
Balance	-4.29	-19.88	-29.60	-38.11	-37.09
Liabilities overtaken from firms	9.77	5.46	37.79	23.42	1.93
Change of debt	14.06	25.34	67.39	61.53	36.30
Debt ^a	14.06	39.40	106.79	168.32	204.62
Interest paid to the Debt Processing Fund		1.14	7.65	4.18	2.72 ^b
Interest on debt accumulated	4.39	9.85	8.27	9.87	10.33

^aAt the end of the year. — ^bNot included in the figures in the two preceding lines.

Source: BVS (1995), Deutsche Bundesbank (various issues), Treuhandanstalt (1994).

4. Creating the German Unity Fund

In May 1990, the German Unity Fund was created. Its purpose was to transfer money to the East in the 1990 to 1994 period for which there was not yet a system of intergovernmental

transfers between the (rich) West and the (poor) East. The Fund received financial means from the federal government (and the West German Länder (states) and their local authorities) and it raised capital market funds. It ended up with liabilities close to DM 90 billion in the end of 1994 (Table 3).

Table 3 — The "German Unity Fund": Balance of Receipts and Expenditures, 1990–1996 (billion DM)

	1990	1991	1992	1993	1994	1995	1996
Expenditures	22.04	36.83	37.82	41.27	41.75	7.50	6.80
Transfers to the new states	22.00	35.00	33.90	35.20	34.60	—	—
Other expenditures ^a	0.04	1.83	3.92	6.07	7.15	7.50	6.80
Receipts	0.05	6.21	15.44	27.79	38.61	9.50	9.50
Transfers from the federal government	0.00	6.00	15.02	17.98	23.98	2.65	2.65
Transfers from the old states	—	—	—	9.72	14.62	6.85	6.85
Other receipts	0.05	0.21	0.42	0.09	0.01	0.00	0.00
Balance	-21.99	-30.62	-22.38	-13.49	-3.14	2.00	2.71
Liabilities ^b	19.79	50.48	74.37	87.68	89.19	87.15	83.55

^aMainly interest. — ^bAt the end of the year.

Source: BMF *Finanzbericht* (1993, 1994, 1995), Statistisches Bundesamt *Fachserie 14* (various issues), Deutsche Bundesbank (various issues).

In 1995, the Fund started to repay its debt. This is possible because the federal government and the West German states (and their communalities) give away nearly DM 10 billion p.a. to the German Unity Fund whereas the Fund's (interest) expenditures amount to only DM 7 billion per year.

5. Establishing the Debt Processing Fund

After the unification the debt of the East German government was taken over by a special institution, the Debt Processing Fund. The fund started with a liability of DM 27 billion (Table 4). When it stopped its work the total liabilities amounted to DM 110 billion (BMF 1997a). A large part of this debt stemmed from the introduction of the D-Mark at a conversion

rate that was favorable for East Germany's citizens. This had meant that equalization claims had to be given to the East German banks; these claims (DM 83 billion) correspond to a considerable share of the liabilities of the Debt Processing Fund.

Table 4 — Liabilities of the Debt Processing Fund and Debt Servicing, 1990-1994 (billion DM)

	1990	1991	1992	1993	1994
Liabilities ^a	27.63	27.47	91.75	101.23	102.43
Change of liabilities	.	-0.16	64.28	9.48	1.20
Interest refunded by					
Federal government	.	1.14	7.65	4.18	2.72
Treuhandaanstalt	.	1.14	7.65	4.18	2.72

^aAt the end of the year.

Source: BMF *Finanzbericht* (1995), Deutsche Bundesbank (various issues), Statistisches Bundesamt *Fachserie 14* (various issues), own calculations.

6. Introduction of the West German Fiscal Constitution in East Germany

After the unification the complete fiscal constitution of West Germany was put on East Germany. The West German tax law had already been introduced by the treaty on the GEMSU. As to the value added tax the GDR had agreed to introduce it as of July 1990. Thus there were no VAT tax borders already in the mid of 1990. Until early 1991, West German imports from East Germany were favored somewhat by reduced VAT tax rates.

7. Transfers by the Federal Government

The federal government had to share the burden given by the creation of the specific funds mentioned. However, the direct burden was larger. It contained expenditures for social purposes, subsidies for East German firms (including the formerly state-owned railway system) and transfers to the East German states and local authorities. These expenditures amounted to DM 57 billion in 1991; they nearly doubled until 1996 (Table 5). In addition,

there were outlays of the federal government for reconstructing streets, harbors etc. in East Germany.

Table 5 — Financial Transfers of the Federal Government, 1991–1996 (billion DM)

	1991	1992	1993	1994	1995	1996
Transfers in favor of East German						
– private households	27.2	32.9	52.6	44.6	44.5	46.3
-- unemployment aid	0.3	1.5	3.5	4.9	5.7	6.8
-- transfers in case of early retirement	5.7	5.1	5.0	7.2	8.2	5.6
-- subsidy to unemployment insurance	5.9	8.9	24.4	10.2	6.9	13.8
-- subsidy to the pension system	7.7	8.7	10.7	13.5	15.1	16.2
-- others	7.6	8.7	9.0	8.8	8.6	3.9
– firms	19.7	22.9	20.2	25.3	25.0	21.6
-- railway subsidies	7.7	9.5	10.1	15.0	13.8	10.9
-- others	12.0	13.4	10.1	10.3	11.2	10.7
– states and communalities	9.5	6.6	7.6	7.3	32.6	32.3
– total	56.5	62.4	80.4	77.2	102.1	100.3

Source: Boss and Rosenschon (1996), own calculations.

8. Support from the West German States

There was direct support for East Germany from the West German states, too. States or communalities in the West German sense did not exist in East Germany because of the centralized nature of the state. These institutions were founded in 1990. A kind of refederalization took place and an administration was built up (Grossekettler 1996: 209). Raising local taxes (land tax e.g.) had been difficult or impossible in a region without clearly defined property rights. The administration was rebuilt with the help of the West German Länder. Many civil servants from the western states worked for some time in the new states' administrations (Heilemann and Rappen 1996: 8–9). It is hardly possible to quantify the amount of the support.

9. Stimulating Investment

As to the incentives for investment in East Germany it is important to look at tax reliefs (including investment tax credits and very generous rules for depreciation allowances), investment subsidies and interest subsidies (Table 6). Large amounts of loans with favorable interest conditions (measured against the market interest rates) were granted by the federal government, the European Recovery Program (ERP), the Kreditanstalt für Wiederaufbau and the Deutsche Ausgleichsbank.

Table 6 — Investment Incentives for East Germany, 1990–1996 (billion DM)

	1990	1991	1992	1993	1994	1995	1996
Tax reliefs							
– Investment tax credit	0.0	1.0	4.2	4.9	4.4	3.6	2.5
– Specific depreciation allowances	0.0	3.4	4.9	6.3	7.1	9.1	9.5
Investment subsidies							
– Grants of the federal government and the states according to the "Gemeinschaftsaufgabe Improving Economic Conditions"	—	7.5 ^a	6.4	7.0	6.7	5.1	6.3
– Transfers of the federal government to the East German states (Länder)	—	—	—	—	—	6.6	6.6
Subsidized loans	9.3	38.5	35.3	25.9	30.3	23.6	25.0 ^b

^aIncluding grants in the fourth quarter of 1990. — ^bEstimated.

Source: Deutsche Bundesbank (1995: 55), Deutsche Bundesbank (1996: 25), BMF (1997b) *Sechzehnter Subventionsbericht*, DIW et al. (1997), Sachverständigenrat (1997).

10. Support by the European Community

East Germany was integrated in the EC concept of supporting economically weak areas already in 1991. This resulted in a DM 5 to 7 billion transfer from the EC in the years following. Of course, this transfer was more or less financed by increased German contributions to the EC (Grossekettler 1996: 221).

II. The Role of Social Insurance

I. General Remarks

The West German system of social security with its high benefit standards and its very broad benefit spectrum was introduced very quickly in East Germany. The process started with the agreement on the social union in July 1990 (GEMSU). Transfers in the range of DM 6 billion were granted in the end of 1990. Finally, it became necessary to transfer large amounts of financial means to East Germany.

The reasons are the bad labor market conditions (due to the "appreciation" of the GDR currency as a result of GEMSU, high wages (in relation to productivity) and the decline of exports to COMECON countries) as well as certain characteristics of the pension system and the unemployment insurance system. In addition, there were specific rules for the East (early retirement etc.) and high pensions because of the general structure of the GDR workforce.

After the unification wages were raised drastically. The employers' associations agreed upon wage increases significantly above the productivity increases because they intended to get rid of competition by many East German firms, the unions agreed because the potentially unemployed would receive high unemployment benefits which are related to (net) wages. Pensioners were not unhappy: they gained by strongly rising pensions because pensions are tied to the average nominal net wages, too. Another reason for raising wages sharply might have been the fear of an accelerating migration out of East Germany (Soltwedel 1997).

Social insurance was in surplus in 1990 and 1991 favored by the unification boom. However, as a large part of the costs of unification had been shifted to social insurance, things changed and the rates of contributions were raised (Table 7), especially the rate for unemployment insurance increased.

Table 7 — Selected Payroll Tax Rates, 1990–1996 (percent of gross wages)

	1990	1991	1992	1993	1994	1995	1996
Rate of contribution to							
– unemployment insurance	4.30	6.18	6.30	6.50	6.50	6.50	6.50
– old age insurance	18.70	17.95	17.70	17.50	19.20	18.60	19.20
– together	23.00	24.13	24.00	24.00	25.70	25.10	25.70

Source: BMA (1996).

2. Old Age Pension System

Some principles of the pension system in the West were introduced in East Germany in 1990. In 1992, the complete West German system was tilt over East Germany. Pensions in the East were calculated according to the West German rules; this meant that women on average received very high pensions because of their long working lives. The pensions were raised twice a year in order to be always close to the rapidly rising wages. During a very short time period the standard pension doubled (Deutsche Bundesbank 1995: 23), in addition it approached quickly the West German level (Table 8).

Table 8 — Pensions in East Germany, 1990–1996

	1990	1991	1992	1993	1994	1995	1996
Standard pension ^a (DM per month)	718	950	1 196	1 448	1 552	1 635	1 727
Standard pension ^a in percent of							
– gross wages		49.6	46.0	47.9	50.7	50.5	51.9
– net wages		60.7	60.2	62.7	67.7	67.9	67.8
– standard pension ^a in West Germany	40.3	50.9	62.3	72.7	75.0	78.6	82.2 ^b

^aIn July of the year (assuming 45 years of working life and average wage income during that period). —
^b85.2 percent in July 1997.

Source: Deutsche Bundesbank (1995: 23), BMA (1996, Table 7.11), VDR (various issues), own calculations.

Facing modest revenues from contributions of the employed in the East, the consequence of high expenditures was that substantial transfers from West Germany were needed. There are two components: the subsidy paid by the federal government (Table 5) and the surplus of the West German insurance system (Table 9); the latter resulted from the increase of the rate of the payroll tax.

Table 9 — Revenues and Expenditures of the Old Age Pension Insurance System, 1991–1996 (billion DM)

	1991	1992	1993	1994	1995	1996
	<i>West Germany</i>					
Revenues	226.40	238.43	243.12	267.27	276.30	288.76
Contributions	183.33	193.31	196.36	215.76	225.32	236.04
Subsidy of the government	38.66	39.81	41.84	48.11	47.98	50.48
Others	4.41	5.31	4.92	3.40	3.00	2.24
Expenditures	215.73	228.05	242.90	258.42	270.04	278.62
Pensions	185.57	195.81	207.63	220.74	230.22	237.45
Others	30.16	32.24	35.27	37.68	39.82	41.17
Balance	10.67	10.38	0.22	8.85	6.26	10.14
	<i>East Germany</i>					
Revenues	32.14	42.32	47.27	54.98	61.58	64.69
Contributions	25.60	32.55	36.05	40.90	44.97	46.58
Subsidy of the government	6.41	9.46	10.83	13.78	16.41	17.91
Others	0.13	0.31	0.39	0.30	0.20	0.20
Expenditures	31.62	46.92	55.17	65.81	77.78	83.83
Pensions	26.71	40.02	45.29	53.14	63.81	68.45
Others	4.91	6.90	9.88	12.67	13.97	15.38
Balance	0.52	-4.59	-7.90	-10.83	-16.20	-19.14
	<i>Total</i>					
Revenues	258.54	280.75	290.39	322.25	337.88	353.45
Contributions	208.93	225.86	232.41	256.66	270.29	282.62
Subsidy of the government	45.07	49.27	52.67	61.89	64.39	68.39
Others	4.54	5.62	5.31	3.70	3.20	2.44
Expenditures	247.35	274.97	298.07	324.23	347.82	362.45
Pensions	212.28	235.83	252.92	273.88	294.03	305.90
Others	35.07	39.14	45.15	50.35	53.79	56.55
Balance	11.19	5.78	-7.68	-1.98	-9.94	-9.00

Source: Deutsche Bundesbank (various issues), own calculations.

3. Unemployment Insurance

Unemployment increased sharply in East Germany after 1990 (Table 10). This is true for registered as well as for hidden unemployment. In the early phase of transformation short-time work was an important issue.

Table 10 — Labor Market Situation in Germany (1000)

	1991	1992	1993	1994	1995	1996
Registered unemployment						
West	1 689	1 808	2 270	2 556	2 565	2 796
East	913	1 170	1 149	1 142	1 047	1 169
People in labor qualification schemes						
West	184	203	231	254	277	276
East	186	397	278	308	351	345
Early retired persons						
West	59	39	20	6	3	2
East	554	811	850	646	370	186
Total unemployment ^a						
West	2 240	2 394	2 998	3 181	3 194	3 465
East	2 723	3 001	2 702	2 391	2 059	1 976
Unemployed persons ^b receiving unemployment benefits						
West	721	841	1 175	1 276	1 216	1 304
East	684	840	713	637	564	684
Unemployed persons ^b receiving unemployment aid ^c						
West	391	412	523	627	661	750
East	24	117	236	323	321	355

^aIncluding unemployment because of short-time work. — ^bRegistered unemployed. — ^cFinanced by the federal government.

Source: Sachverständigenrat (1994: 100; 1996: 111; 1997: Table 38), BMA (1996), own calculations.

East Germany had established a system of unemployment insurance in early 1990. According to the treaty on the GEMSU, the system was completely adjusted to the West German system; the systems were melt into one another already in autumn 1990.

The transfer from the West to the East resulting from the amalgamation of the systems is considerable. It is roughly DM 18 billion for the 1991–1996 period on average (Table 11). In addition, the federal government granted large amounts of money in order to finance unemployment benefits etc. (Table 5).

Table 11 — Budget Balance of the West and the East German Unemployment Insurance System, 1991–1996 (billion DM)

	1991	1992	1993	1994	1995	1996
Balance in West Germany	23.58	28.86	22.54	27.63	24.87	20.52
Balance adjusted for distortions of the imputation of contributions	19.83	24.62	15.09	19.34	16.17	11.88
Balance in East Germany	-25.32	-42.70	-46.97	-37.84	-31.77	-34.29
Balance adjusted for distortions of the imputation of contributions	-21.57	-38.46	-39.52	-29.55	-23.07	-25.65
Balance in Germany ^a	-1.74	-13.84	-24.43	-10.21	-6.90	-13.77

^aFinanced by the subsidy of the federal government.

Source: Bundesanstalt für Arbeit *Presseinformationen* (various issues), own calculations.

Table 12 — Revenues and Expenditures of Unemployment Insurance in East Germany, 1991–1996 (million DM)

	1991	1992	1993	1994	1995	1996
Contributions	4552	3297	3569	3730	3956	3884
Others	7	17	30	55	59	57
Revenues	4559	3313	3600	3785	4015	3941
Unemployment benefits	7810	11809	12868	12663	12668	16503
Benefits to short time workers	10006	2653	919	499	424	435
Expenditures for labor qualification measures	5283	12532	12096	8681	9283	9708
Wage subsidies	3076	7803	8969	8227	8414	8402
Transfers in case of early retirement	2700	9312	13410	9006	2214	133
Subsidies for working under bad weather conditions	74	357	453	456	417	248
Administrative expenditures	849	1314	1569	1667	1689	1879
Other expenditures	77	236	282	421	671	918
Expenditures	29875	46014	50566	41620	35781	38226
Balance	-25316	-42701	-46966	-37835	-31765	-34285
Unemployment aid ^a	271	1489	3658	5057	5726	6792

^aFinanced by the federal government.

Source: Bundesanstalt für Arbeit *Presseinformationen* (various issues).

Qualification of the unemployed was an important policy target during the transformation process. Thus, expenditures for qualification measures (including wage subsidies) were outstanding among the expenditures of the unemployment insurance in the East (Table 12). In 1996, they amounted to nearly 50 percent of total outlays.

4. Health Insurance

Health insurance is another important part of social insurance in Germany. The structure of the West German system was tilt over East Germany beginning in 1991. However, the systems are separated from each other. Thus, there is no direct transfer from the West to the East. However, pensions as well as unemployment benefits do include a contribution to health insurance; so the transfers from these branches of social insurance contain a (minor) transfer element.

III. Financing West Germany's Financial Transfers to the East

When the unification process started, nobody had a clear-cut idea about the costs of unification. So there were only limited expenditure cuts and small tax increases; the introduction of a 7.5 percent income tax surcharge was restricted to a one year period (July 1991 to June 1992). Consequently, the public sector's deficit increased. However, the budget deficits of the federal government, the states etc. only rose slightly, a large part of the additional debt was hidden in specific funds including the then still state-owned railway system (Table 13).

When it became evident that the fiscal burden would be much higher than expected, taxes were raised¹ and specific expenditures were reduced (Heilemann and Rappen 1996: 13–14).

¹ There were also some tax cuts aiming at improving the investment climate in the West as well as in the East of Germany (e.g. reduction of the corporation income tax).

Table 13 — Public Sector Balance of Receipts and Expenditures by Subsectors^a, 1990–1996
(billion DM)

	1990	1991	1992	1993	1994	1995	1996
Federal government	-45	-52	-33	-61	-39	-51	-79
States, West ^b	-19	-16	-15	-20	-20	-23	-24
States, East	—	-11	-13	-16	-17	-13	-12
Berlin	—	-3	-4	-7	-7	-11	-11
Communalities, West	-4	-6	-9	-9	-6	-12	-4
Communalities, East	—	2	-8	-4	-5	-2	-3
Total	-68	-86	-82	-118	-95	-113	-133
ERP special fund	-2	-7	-7	-2	-2	-2	0
German Unity Fund	-22	-31	-22	-13	-3	2	3
Debt Processing Fund ^c	—	1	0	0	0	—	—
Redemption fund for inherited liabilities	—	—	—	—	—	7	10
Railways	-5	-10	-11	-12	-5	-7	0
Coal equalization fund	—	—	—	—	—	—	-1
Treuhandanstalt ^c	-4	-20	-30	-38	-37	—	—
Total	-33	-67	-70	-65	-47	0	12
Social Insurance	16	13	-8	3	1	-11	-13
Total	-85	-139	-159	-179	-142	-124	-135
Total, percent of GDP		-4.9	-5.2	-5.7	-4.3	-3.6	-3.8

^aStatistics of public finance (not NIPA). — ^bExcluding Berlin. — ^cExcluding liabilities overtaken.

Source: Deutsche Bundesbank *Monatsberichte* (various issues), BMF *Finanzbericht* (various issues), Statistisches Bundesamt *Fachserie 14, Reihe 2*, Statistisches Bundesamt *Fachserie 14, Reihe 3.1* (various issues), Treuhandanstalt (1994), BVS (1995), own calculations.

Nevertheless, government expenditures in relation to GDP rose in the early nineties (Table 14). The public sector's deficit in relation to GDP more than doubled after 1990; however, the very high figures for 1992 and 1993 are strongly influenced by the recession at that time. Corresponding to the development of the deficit figures, the public sector's debt outstanding (in relation to GDP) rose by nearly 50 percent in the first half of the nineties. The most important part of the additional debt of the early nineties is in the books of the specific funds created (Table 15).

Table 14 — Government Expenditures^a, Taxes, Contributions to Social Security, Balance and Public Sector Debt, 1991–1997 (in relation to GDP)

	Expenditures	Taxes	Contributions to social security	Other Revenues	Balance	Public sector debt ^b
1991	50.1	24.2	18.0	3.3	-4.5	44.0
1992	51.9	24.5	18.3	3.7	-5.4	48.7
1993	52.7	24.4	18.8	3.7	-5.8	54.6
1994	51.4	24.4	19.3	3.7	-3.9	57.6
1995	50.7	24.2	19.5	3.6	-3.4	58.0
1996	50.0	23.2	19.9	3.4	-3.5	60.4
1997	49.0	22.5	20.0	3.4	-3.2	61.3

^aNIIPA, including Treuhandanstalt. — ^bAt the end of the year.

Source: Statistisches Bundesamt (1997a, b), Sachverständigenrat (1996, 1997), own calculations.

Table 15 — Outstanding Public Sector Debt by Subsectors, 1990–1996 (billion DM)

	1990	1991	1992	1993	1994	1995	1996
Federal government	542	586	611	685	712	757	840
States, West ^a	329	347	367	394	415	443	477
States, East	.	5	23	40	56	69	81
Communalities, West	126	132	140	149	156	160	161
Communalities, East	.	9	14	24	32	37	39
Total	997	1079	1155	1292	1371	1465	1599
ERP special fund	9	16	24	28	28	34	34
German Unity Fund	20	50	74	88	89	87	84
Debt processing fund	28	27	92	101	102	—	—
Treuhandanstalt	14	39	107	168	205	—	—
State-owned housing sector of the GDR	38	42	46	51	51	—	—
Redemption fund for inherited liabilities	—	—	—	—	—	329	332
Coal equalization fund	—	—	—	—	—	2	3
Total	1105	1255	1498	1728	—	—	—
percent of GDP	—	44.0	48.7	54.6	—	—	—
Railways	47	43	54	66	71	78	78
Others	—	—	—	—	—	13	11
Total	1152	1298	1552	1794	1918	2008	2140
Outstanding debt in percent of GDP	.	45.5	50.4	56.7	57.6	58.0	60.4
GDP	.	2854	3079	3164	3328	3460	3542

^aIncluding Berlin.

Source: Deutsche Bundesbank *Monatsberichte* (various issues), Bundesministerium der Finanzen *Finanzbericht* (various issues), Statistisches Bundesamt (various issues), own calculations.

In the course of 1995, the Redemption Fund for Inherited Liabilities took over a significant part of the debt accumulated in the process of unification (DM 336 billion). The liabilities declined somewhat until the end of 1995 because a large part of the Bundesbank's seigniorage gain was given to the fund; they increased again because additional debt was taken over (BMF 1997a: 2-3). The fund's interest expenditures are refunded by the federal government.

IV. Summing up: The Fiscal Burden of the Unification

The West German transfers to East Germany (net of additional revenues of the federal government) sum up to roughly DM 1 trillion in the period 1991 to 1996 (Table 16, line V.). They were granted mainly by the federal government, special funds and social insurance. A small part of the transfers stems from tax reliefs which led to a shortfall of revenues (Table 16, line II.).

In 1995 and 1996, the financial transfers seem to have reached something like an equilibrium level. Nevertheless, the transfer still amounted to about DM 141 billion in 1996, i.e. DM 9 100 per capita (of the East German population); the relation to the West German GDP is 4.5 percent. The transfers amounted to 34 percent of the East German GDP in 1996. In the early nineties, they equalled more than 60 percent of the East German GDP (Table 17).

Some other comparisons might be useful in order to shed light on the level of the transfers paid by West Germany. The interest paid on the public sector's debt was DM 130.5 billion in 1996. The general government's budget deficit (in NIPA definition) was DM 124.3 billion. Both figures are similar to that for the transfer in 1996.

Table 16 — Public Financial Transfers to East Germany, 1991–1996 (billion DM)

	1991	1992	1993	1994	1995	1996
I. Expenditures						
1) Federal Government ^a	54.48	72.89	85.15	82.74	108.69	107.46
Transfers in favor of private households ^b						
firms	27.20	32.91	52.63	44.59	44.49	46.34
states and local authorities	19.70	22.89	20.20	25.27	24.99	21.61
Expenditures for the infrastructure of East Germany ^c	9.55	6.59	7.60	7.29	32.58	32.35
Additional subsidy for social insurance	2.26	4.07	3.30	3.81	4.16	4.20
2) States ^a	-4.23	6.43	1.42	1.78	2.47	2.96
3) European Community	—	—	—	—	9.77	10.00
4) German Unity Fund ^d	4.00	5.00	5.00	6.00	7.00	7.00
5) Debt processing fund (liabilities overtaken)	35.00	33.90	35.20	34.60	—	—
6) Treuhandanstalt	-0.16	64.28	9.48	1.20	—	—
7) Transfer to the state-owned housing sector of the GDR	23.82	57.76	53.75	30.75	—	—
8) Old age pension system of West Germany	2.30	2.60	2.30	—	1.20	—
9) Unemployment insurance of West Germany	—	4.07	7.90	10.83	16.20	19.14
10) Total	19.83	24.62	15.09	19.34	16.17	11.88
II. Shortfall of revenues	139.27	265.12	213.87	185.46	159.03	155.48
III. Gross financial transfer (I + II)	13.09	15.41	15.50	14.22	20.28	27.35
IV. Additional revenues of the federal government due to unification	152.36	280.53	229.37	199.68	179.31	182.83
V. Net financial transfer (III / IV)	22.40	27.63	30.71	36.07	40.00	42.00
	129.96	252.90	198.66	163.61	139.31	140.83

^aExcluding subsidies to specific funds (e.g. German Unity Fund). — ^bIncluding subsidies to social insurance. — ^cStreets, harbors etc. — ^dExcluding expenditures for debt servicing.

Source: Boss and Rosenschon (1996), own calculations.

The support given to West Germany by the Marshall plan in the period 1948 to 1951 was equal to about 3 percent of Germany's Gross National Product (GNP) (Heilemann and Rappen 1996). A final comparison is helpful. Following World War I, Germany had to make reparations in the range of 3 percent of GNP (Grossekettler 1996: 235). Seen in this way it is astonishing that there was hardly any excitement in the (West) German public discussion of fiscal policy in the recent years.

Table 17 — GDP and Domestic Demand in East Germany versus Transfers from the West, 1991–1996 (billion DM)

	1991	1992	1993	1994	1995	1996
Gross Domestic Product	206.0	265.6	323.2	366.1	398.0	414.2
Gross Domestic Product minus net exports (consumption plus investment)	360.4	453.6	515.6	569.4	.	.
Net exports	-154.4	-188.0	-192.4	-203.2	.	.
Transfers from West Germany	130.0	252.9	198.7	163.6	139.3	140.9
Transfers in p.c. of consumption plus investment	36.7	55.8	38.5	28.7	.	.
Transfers in p.c. of GDP	63.1	95.2	61.5	44.7	35.0	34.0

Source: Statistisches Bundesamt (1997a, b, c), own calculations.

Table 18 — The Structure of the Financial Transfers to East Germany, 1995 and 1996 (billion DM)

	1995	1996
I. Transfers attributable to a specific purpose	123.9	126.3
Consumptive transfers	93.8	97.5
Subsidy from the West German old age pension system	18.7	22.0
Subsidy from the West German unemployment insurance	16.2	11.9
Federal government transfers to private households	44.1	52.3
Federal government transfers to firms	13.7	10.4
Other expenditures	2.3	0.9
Investment expenditures	28.9	28.8
II. Untied transfers	44.5	44.9
Transfers from West to East German states	9.8	10.0
Subsidies from the federal government	18.3	18.3
VAT revenue shortfalls	16.4	16.6
III. Transfers (I + II)	168.4	171.2
IV. Transfers from the European Community	7.0	7.0
V. Tax revenue shortfalls due to tax reliefs	3.9	4.5
VI. Gross transfers (= line III in Table 16)	179.3	182.7

Source: Boss and Rosenschon (1996), own calculations.

It is not possible to classify all of the transfers according to specific purposes. For many of them it is not known how they were used. Most of the rest is not used in a productive way.

Instead social expenditures are financed (Table 18). According to the Bundesbank, it seems to be justified to argue that at least 40 percent of the transfers measured in an alternative way (Bundesbank 1996) are transfers used for social policy purposes.

V. Conclusions

Seven years after the German unification it seems to be possible to draw some conclusions from the experience. Supporting East Germany proved to be extremely expensive. One of the reasons is the high level of unemployment (unemployment rate in October 1997: 18.2 percent; West Germany: 9.5 percent); it cannot be explained in this paper why unemployment reached such a high level. The other reason for the huge amount of transfers to East Germany is the introduction of the West German welfare state in East Germany.

Both reasons should not be assessed isolated from each other. Actually, there is an interconnection. The level of welfare benefits does affect the incentives to work and thus employment. In this respect, it is important to remember that the West German system of social aid for the poor which was introduced in the East; of course, this had its implications for employment, too. This was the more the case because the level of the minimum income guaranteed by the state quickly approached the West German level (Table 19). As a consequence a relatively high minimum wage was established for the relevant labor market segment of East Germany. This hindered the process of adjusting wages to their equilibrium levels. Unemployment became higher than necessary. So did the transfers from West Germany.

The measures to promote investment and economic growth seem to have favored capital intensity (Gerling 1997, Sinn 1997). So the East German labor market problem is to some extent the consequence of the specific economic policy.

Table 19 — Wages and Transfers to the Poor, 1990–1996 (D-Mark per month)

	1990	1991	1992	1993	1994	1995	1996
Average wage							
West Germany	.	3 712	3 929	4 043	4 122	4 250	4 330
East Germany	.	1 834	2 493	2 860	3 031	3 210	3 310
East in relation to West (p.c.)		49.4	63.5	70.7	73.5	75.5	76.4
Social aid ^a							
West Germany	436	460	491	511	519	525	527
East Germany	.	423	467	495	502	506	508
East in relation to West (p.c.)	.	92.0	95.1	96.9	96.7	96.4	96.4

^aExcluding payment for rent and other housing costs.

Source: Statistisches Bundesamt (1997a, b, c), BMA (1996).

Finally, the East German states apparently did receive too much money. More important: The structure of the financial transfers did not give the correct incentives. A successful economic policy of a state does not necessarily increase the tax revenues of that state. However, this has been a problem in West Germany for quite a long time.

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