Kiel Institute for World Economics
Duesternbrooker Weg 120
24105 Kiel (Germany)

Kiel Working Paper No. 1196

Germany's Fiscal Policy Stance

by

Horst Siebert

January 2004

The responsibility for the contents of the working papers rests with the author, not the Institute. Since working papers are of a preliminary nature, it may be useful to contact the author of a particular working paper about results or caveats before referring to, or quoting, a paper. Any comments on working papers should be sent directly to the author.

Germany's Fiscal Policy Stance

Abstract: This paper analyzes Germany's fiscal policy position. Half of GDP passes through the hands of government, a high debt to GDP ratio limits the maneuvering, and the revenue sharing mechanism prevents a competitive federalism. Most importantly for the future, the federal finance minister has to pick up the deficits that the social security systems leave behind. Transfers from the public budget to the social security systems are large, and since 1998 the elasticity of transfers to nominal GDP is 4. This trend will intensify in an aging society. All these factors weaken the prospects for reform that Germany must undertake in its taxation and expenditure system in view of the changed international conditions.

Keywords: Fiscal Policy, Subsidies, German Unification, Debt, Revenue Sharing, Social Policy

JEL classification: E12, E13, H20,I 00

Horst Siebert
Kiel Institute for World Economics
24100 Kiel, Germany
Telephone: +49/431/8814-567
Fax: +49/431/8814-568
E-mail: hsiebert@ifw.uni-kiel.de

Germany's Fiscal Policy Stance

Germany's fiscal policy condition has deteriorated since 2001. From 2002 to 2004, the budget deficit has exceeded the Maastricht limit of three per cent of GDP in three years in a row. Tax revenue remains way below expectations, the strategy of budget consolidation has been abandoned, and the public's confidence in the government's fiscal policy is in jeopardy. As in other policy areas, to effectively institute the structural features requires major reforms. The high debt to GDP ratio limits the maneuvering space of government, the revenue sharing mechanism prevents a competitive federalism and the finance minister has to pick the deficits that social policy leave behind. These factors not only weaken the prospects for reform, but they also make a steady fiscal policy nearly impossible and even put its sustainability into question. The already high annual transfers to the social security system and its implicit debt will be a topic that will occupy German economic policy for the next two decades.[1]

The Role of Government Spending in the Economy

In Germany, the public sector absorbs half of GDP. The state's share in GDP currently amounts to 49.2 per cent (2003), and 48.5 is forecasted for 2004. This includes the federal level, the Länder, the municipalities and the social security system. The share has increased by nearly twenty percentage points since 1950 when it was 31.6 per cent (Table A1 in the appendix). It was 32.9 per cent in 1960 and rose by six percentage points in the 1960s. In the 1970s, it then grew from 39.1 per cent by nine percentage points. In the recessions of 1975 and 1982

[1] I appreciate critical comments from Alfred Boss, Eduard Herda, David Moore, Rolf Peffekoven and Joachim Scheide.

it stood at 49.9 and 48.9 per cent, respectively. Having been reduced to 44.0 per cent in 1989, it went up to a maximum of 50.3 per cent in 1996.

In the consolidated budget of the state, i.e. of the public sector, consisting of the three layers of government and the social security system, 24.5 per cent is spent for wages and intermediate goods, 3.3 per cent on investment, 6.3 per cent on interest, 3.0 per cent on subsidies and 55.7 per cent on social benefits and social purposes (according to the macroeconomic accounts[2] of 2002). The spending on social benefits and social purposes represents to an overwhelming part the expenditures of the social security system.

Germany is a federal state. Federalism is an approach to assign tasks to those layers of government that are best fit to solve. Issues of a local nature are to be handled at the local level. There information on the issue at hand is most likely to be available and local preferences can be voiced. Thus, municipalities should be involved in shaping local public goods and addressing local problems. This means, for instance, that they are responsible for the local infrastructure and for administering social welfare. Issues with a larger, but intermediate dimension are allocated to the federal states, the Länder. Problems where the benefits or costs affect the country as a whole are to be dealt with at the national level. Note that the spatial dimension of public goods is also discussed under the heading of the spatial extent of technological externalities or spillover effects. To start in the assignment of tasks with the lowest level and then to assign tasks that cannot be solved there to the higher levels of government is called the subsidiarity principle in the continental European tradition. This principle is at the heart of federalism. Assigning public goods of different spatial dimensions to different levels of governments provides the guideline for the allocation of expenditures

---

[2] Data bank of the Bundesbank, A-Staatsausgaben. The data are different in the financial statistics.

and revenues to the different levels of government (fiscal equivalence, Olson 1969).

The expenditures of government, i.e. of the three organizational layers of the state, the federal level, the Länder and the municipalities, excluding the social security system, account for about three-fifths of the state's spending. The social security system makes up about two-fifths. The federal layer comprises about 40 per cent of the spending of the government (Table 1). Note that there are many cross flows between the different layers; therefore the sum of the gross expenditures is not identical to consolidated spending of either the government or the state[3]. For instance, the federal government provides transfers to the Länder and the Länder allocate funds to the municipalities. Moreover, the social security systems receive transfers from the federal level.

Table 1: Structure of the State's Budget, bill euro, 2002 [a]

	Expenditures	Revenues	Balance
Government	645	577	- 68
Federal	302	268	- 34
Federal States	289	258	- 31
Municipalities	155	152	- 3
Social Insurance	465	459	- 6 [b]
State	1.024	950	- 74

[a] Unconsolidated flows, therefore not addable vertically. [b] Figure rounded downward. .
Source: Federal Statistical Office, Macroeconomic Accounts.

[3] Not all transfers are calculated identically. Thus, at the federal level supplementary transfers of the federal layer to the Länder are netted with tax receipts so that they appear as a lowering of tax revenue, whereas financial transfers represent expenditures and are itemized on the expenditure side.

It can be expected that Germany's high share of government spending in GDP has a negative impact on the economy, especially on the growth rate. With the German government controlling aggregate spending equalling nearly half the GDP, it is likely that Germany is on the right hand slope of a bell-shaped curve representing the growth rate versus the share of governmental spending. A reduction of the government's expenditures will set free resources and create more maneuvering space for the private sector, and it will stimulate new initiatives by firms and entice effort of market participants. This prescription applies particularly to the overwhelming part of consumptive expenditures of the government; governmental expenditures for investment stood only at 1.6 per cent of GDP in 2002, having fallen to one third from its 1970 level. The task of German economic policy must be to find the optimal size of governmental activity and to rethink and reduce the role of government spending in the market economy.

The Tax System

The two taxes with the highest revenue are the income tax and the value added tax (Table 2). The income tax has as its tax base individual income and income of the corporations. It includes seven income categories, among them the wage income of employees, the income of self-employed (assessed income tax) and income from capital. The corporate tax, a tax on the income of incorporated firms, normally provides a revenue of around 20 bill euro per year. It had low revenues of only 7.5 bill euro in 2003, 2.9 bill euro in 2002 and even a negative revenue of 0.4 bill euro in 2001 due to the tax reform of 2000. The value added tax is paid on the value added generated at each stage of production, but passed on to domestic final consumption demand. Investment and exports are exempt from it. A tax with an important revenue is the petroleum tax, which includes the

tax on gas for cars and heating oil; moreover, the local business tax is an important source of revenue for the municipalities.

Table 2: Tax revenue, bill euro, 2003[a]

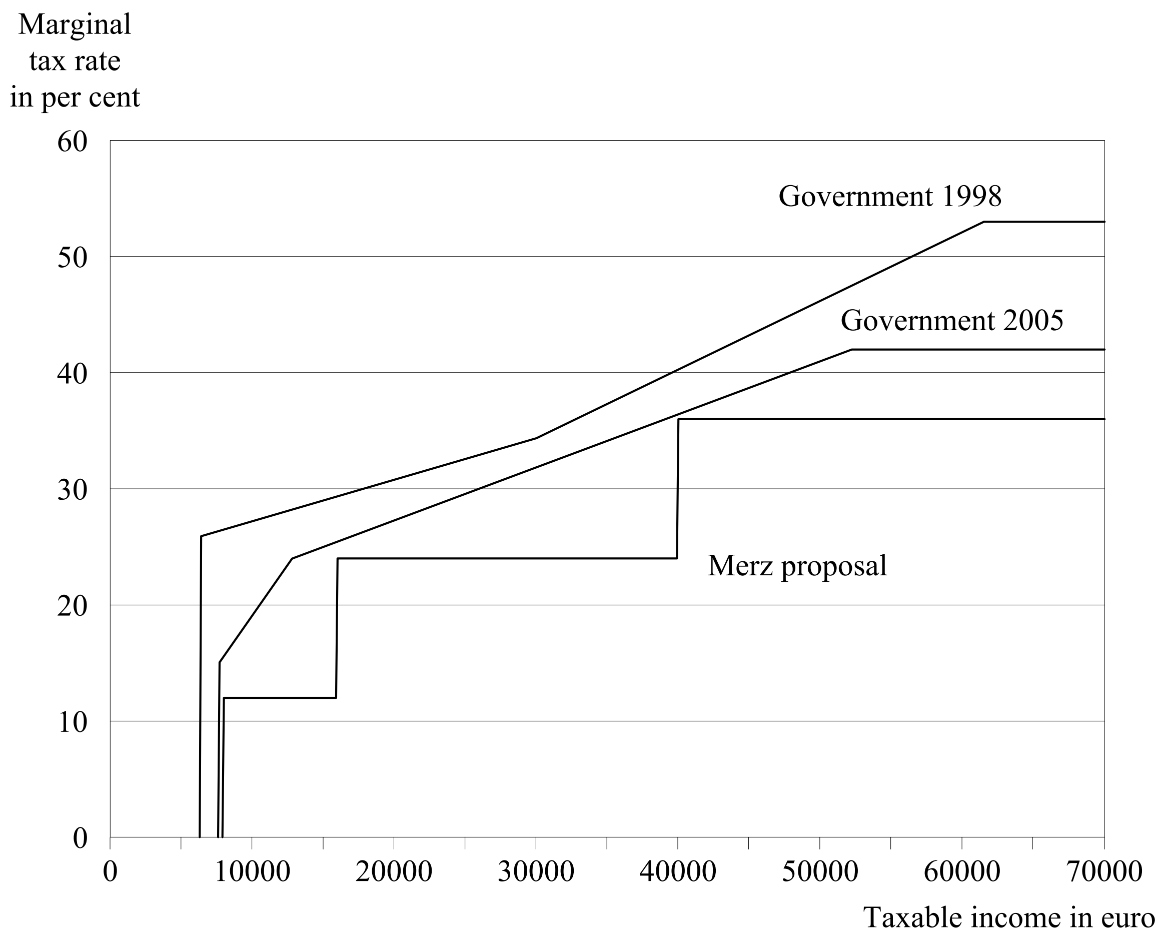
Income tax (wage income plus assessed income)	138.0
Corporate income tax	7.5
Other income taxes [b]	28.4
Value added tax	137.0
Petroleum tax	43.1
Local business tax	24.2
Other taxes	92.9
Total revenue	442.2

[a] Preliminary Data. – [b] Tax on interest income, solidarity payment.
Source: German Council of Economic Advisers (2003: 266)

The distribution of tax revenue also reflects the federal structure. Thus, the two taxes with the highest receipts are split between the federal, the states and the municipal level. The federal level and the Länder each receive, in broad interpretation, 42.5 per cent of the wage and assessed income tax revenue, with the remaining 15 per cent going to the municipalities. The corporate income tax is split half and half between the federal level and the Länder half and half. The revenue of the value added tax is divided between the federal government, the Länder and the municipalities in the proportions of 51.4 per cent, 46.5 per cent and 2.1 per cent, respectively. While the petroleum tax is purely a federal tax, the tax on property (real estate) is purely a local tax. At the moment, a wealth tax is not levied.

As of 2005, the income tax begins to be applied at a taxable income of 7 665 euro per year for a single individual with a tax rate of 15 per cent. Income below that threshold is not taxed. The tax rate then increases to a maximum of 42.0 per cent at an income of 52 152 euro and remains constant thereafter. These rates represent the marginal rates. In the income bracket up to 12 755 euro, the marginal rate increases steeply up to 25.97 per cent; it then rises more slowly up to 52 151 euro. For a married couple, total income is split in half and then taxed respectively (known as "splitting"). For each child, 5 808 euro can be deducted per year from the taxable income. Families who do not earn enough to benefit from this arrangement (taxable income less than 52 632 euro) receive a child allowance (*Kindergeld*) amounting to 154 euro for each of the first three children and 179 euro for each child thereafter.

Figure 1: Marginal income tax rates



Value added tax is paid on the additional value generated at each stage of production where value added means income paid to factors of production plus pure profits at each stage. The tax base is defined as sales minus costs for intermediate products bought from other suppliers minus investment expenditures. Each firm pays tax on its revenue and subtracts the value added tax paid by the previous suppliers in the vertical chain of production. There is no value added tax for exports; this also applies to exports to the other EU countries. Exporting firms can deduct the value added tax paid by the previous suppliers. Imports are taxed with the value added tax. This means that in the European Union the tax is paid in the country where the product is finally consumed carries the burden of the value added tax (so called principle of destination). Investment goods also are exempt from the value added tax. Thus, the value added tax is *de facto* a tax on consumption. Unlike a cumulative sales tax, the value added tax avoids accumulating the tax amount over the vertical chain of production. The rate of the value added tax in Germany is 16 per cent; however, a reduced rate of 7 per cent applies to foodstuff, media products and some other goods. There is no value added tax on housing rents, unless it is done commercially.

Besides some changes in the years from 1998 to 2001, the tax reform decided by parliament in 2000 reduces the tax load in several consecutive steps in the years 2001-2005 (Table 3). Regarding the income tax for individuals, the threshold of taxable income at which the income tax starts has been raised. Moreover, the initial income tax rate has also been brought down so that people with lower incomes pay less taxes. The maximum income tax rate also has been lowered considerably coming down to 42 per cent from 53.0 in 1998. However, the threshold from which the maximum income tax rate applies has also been scaled down, implying that the maximum rate now refers to lower incomes. The

revenue elasticity of the reformed income tax is even higher than the elasticity for the 1998 tax according to a simulation, due to the steeper rise of the marginal tax rate over some income ranges (Boss and Elendner 2003).

Table 3: Tax base and tax rates of the income tax, 1998-2005

Year	Income tax threshold	Taxable income at which the maximum rate applies	Initial income tax rate	Maximum income tax rate	Corporate income tax rate for retained earnings
	in euro		in per cent		
1998	6 365	61 042	25.9	53.0[a]	45.0
1999	7 067	61 042	23.9	53.0[a]	40.0
2000	7 499	58 696	22.9	51.0[a]	40.0
2001	7 093	55 568	19.9	48.5	25.0[b]
2002	7 235	55 008	19.9	48.5	25.0[b]
2003	7 235	55 008	19.9	48.5	26.5[b]
2004	7 426	52 293	17.0	47.0	25.0[b]
2005	7 664	52 152	15.0	42.0	25.0[b]

[a] A different rate applied to commercial income; maximal tax rate 47, 45 and 43 per cent, respectively .– [b]Applies also to the distribution of dividends.

Source: Federal Ministry of Finance, Boss and Elendner 2003.

For firms, the rate of the corporate income tax has been reduced from 45.0 per cent in 1998 to 25.0 per cent. This rate applies independently of whether the earnings are retained or whether they are paid out as dividends. Additionally, firms must pay the local business tax so that the tax rate from both taxes is estimated to equal 39 per cent for the larger corporations. The owners of small firms can deduct part of the local business tax from their income tax. The tax load for firms is still high compared to other countries. Thus, for incorporated firms the marginal tax rate is estimated at 40.7 per cent in 2003, the effective marginal rate at 31.1 per cent and the effective average rate at 37.2 per cent. This is higher then in France with the exception of the effective marginal rate[4], in Italy, Ireland, the Netherlands and Sweden (Council of Economic Advisers 2003, Table 58).

For the capital owner, who supplies his savings, the tax rate is different from that of the firms because he must pay his personal income tax on his dividend or interest income. There is no capital gains tax outside the speculation period.[5] However, only half of his dividend income is subjected to the personal income tax rate, the argument being that the income was already taxed at the firm level (half-income approach or *Halbeinkünfteverfahren*). Prior to the tax reform, the capital owner could deduct the corporate income tax already paid by the firm from his income tax liability (credit approach or *Anrechnungsverfahren*). Therefore the reduction in the tax rate of the firms does not mean a similar reduction for the capital owner. The smaller and medium sized firms complain that the tax reform favors larger firms. As long as they keep profits as retained earnings, the earnings effectively have a lower tax rate for the capital supplier than dividends. Indeed, the tax is not neutral with respect to the legal forms of enterprises. However, the person who provides capital is taxed at about the same

---

[4] For France, the rates are 35.4, 34.9 and 34.1; for Italy 38.3, 32.4 and 21.4 and for Sweden 28.0, 23.3 and 17.0.
[5] One year for shares, ten years for houses.

effective rate independently of whether he invests in his own firm or in a publicly traded company.

To apply different tax rates to the enterprises and to persons, as is the case in Germany now, requires a clear separation of the tax base for the enterprise sector from the tax base of individuals. In the case of owner- firms, many details in the taxation laws have to be specified to delineate the two areas. In the case of incorporated firms, the more favorable tax rate for firms requires some type of additional taxation when ownership titles are sold. This would mean that a capital gains tax becomes necessary in such a system at least when the equity titles are sold.

On a more fundamental aspect, there are two different concepts for an income tax system (German Council of Economic Advisers 2003). According to the concept of a synthetic income tax, all types of income are subject to the same tax rate. This avoids delineation issues. Admittedly, the German system has become inconsistent due to many exemptions. One line of reform therefore is a simplified tax system where exemptions are abolished and where the tax rates come down. This has been accentuated in 2003 by the Merz proposal of the Christian Democrats; similar proposals have been presented by the Council of Economic Advisers in the annual reports of the 1990s, the Bareis Commission, the previous constitutional court judge Kirchhoff, the Petersberger Beschlüsse of the Christian Democrats and by the Liberal Democrats.

According to an alternative approach, a distinction should be made between taxing capital income (enterprise sector, dividends and interest) and other labor income (dual income tax). Since capital is mobile internationally, a lower rate should be applied to capital income as in the Scandinavian approach. This concept, for which the German Council of Economic Advisers has expressed

sympathy in its Annual Report 2003/2004, has to solve the delineation issue for the multitude of firms between the enterprise sector and the individual area. It is likely to imply bureaucratic decisions. This is a specific problem with respect to the Mittelstand. The approach may also lend itself to a more active and interventionist role of the government defining income taxation from its functionality instead of starting from the premise that the state's infringement on the individual's maneuvering space and his liberty should be limited.

Subsidies

Governmental financial support to firms and households plays an important role in the German economy. Subsidies can be explicit transfer payments or they can come in the form of tax breaks. In a narrow interpretation used in macroeconomic accounting, subsidies are transfers to producers. This delineation would exclude transfers to households and to targeted groups of society, which constitute an important element of governmental transfers in a social market economy. It would also exclude transfers to semi-public service suppliers or tax breaks for them, such as the supply of community heating by municipal suppliers or the operation of museums. I therefore apply the wider definition as used by the Kiel Institute for World Economics including these aspects (Boss and Rosenschon 2002). Subsidies then are defined as financial support or tax breaks that affect the allocation of resources. They account for 156 bill euro per year in 2001, which equals 7.5 per cent of GDP or 35 per cent of total tax revenue.

Subsidies include sector specific subsidies (86 bill euro) for agriculture, for coal mining, for transportation, especially for the public transport system, for housing and subsidies to firms in general such as in regional and structural policy and

employment policy (Table 4). Subsides also include transfers to specific groups like housing allowance for low-income groups, but they do not include funds spent for the general function of the state, such as providing funds for poverty relief or the financial flows of the government to schools, universities and to research organizations like the Max Planck institutes. Subsidies come from the three layers of government, the Federal Labor Office and from the European Union.

Table 4: Subsidies in bill euro, 2001

By kind and source		
Financial support		116
– Federal level	30	
– Federal states and municipalities	71	
– European Union	6	
– Federal Labor Office	9	
Tax breaks		40
Total subsidies		156

By target		
Sector Specific subsidies to firms of which		86
– Agriculture	13	
– Coal mining	5	
– Transportation	24	
– Housing	22	
Nonsector-specific subsidies to firms of which		25
– Regional and structural policy	6	
– Employment policy	11	
Subsidies to semi-public services		45
Total subsidies		156

Source: Boss and Rosenschon (2002), Tables 5 and 6.

The political compromise between the government and the Bundesrat in December 2003 in order to move up part of the tax reduction by one year brought the reduction of two subsidies, the support for families to build a house and the tax allowance for commuters to the job, which incidentally only had

been expanded in 1990 by the Red-Green government. Subsidies to the coal industry were supposed to end in 2005. In November 2003, however, the Chancellor promised a continuation of the subsidies until 2012 with a total volume of 16 bill euro for the whole period. In principle, this violates the EU' s code on state aid. But in a compromise with the European partners, Germany secured the votes of some EU countries and obtained the permission of the EU Council to continue the coal subsidies. In return, it had agreed that they could go on with their preferential treatment of their trucking industry. Thus, besides the taxpayer, German truckers pay the price for the coal subsidies.

This identification of subsidies does not include all types of state aids. The reason is that the calculation is simply too difficult. For instance, the bail-out obligation of municipalities and the federal states vis-à-vis the savings banks and the federal states banks are not factored in. Another aspect left out is that the electricity distributors are forced to purchase the electricity produced from wind mills at an artificially high price. Involvement of government in terms of equity where the state renounces receiving a normal rate of return is not counted either.

Subsides create large opportunity costs. These costs stem from a heavier tax burden, which reduces the effort of workers and entrepreneurs and negatively affects labor supply and demand as well as investment. Traditionally, inefficient or less productive sectors receive the state aid, so that overall productivity is reduced. As a result, new sectors are hurt, and allocation is distorted. Firms engage in rent seeking as they attempt to receive favorable treatment instead of competing in the market place. Once an economy gets used to subsidies, it is difficult for the politician to say "no" when a firm, a sector or a whole region finds itself in trouble. Moreover, subsidies are one reason for a high share of government in GDP, which has a negative impact on growth once a certain threshold is surpassed. Germany has had a discussion from time to time on

cutting subsidies, either in a lawnmower approach by reducing all the subsidies by an equal percentage or by getting rid of specific subsidies. At the same time, new subsidies, for instance for windmills or for the cogeneration of electric power and heat.

Distributional Elements in the Budget

Germany's fiscal policy traditionally has a distributive role, besides the function of allocation, i.e. of providing public goods. A large part of the government expenditures is absorbed for social purposes. Analyzing governmental expenditures by function, 42 per cent of the expenditures of the federal government (102 bill euro out of 243 bill euro in 2001) are for social purposes according to the official classification of the government. This includes among others the transfers to the social security system - one fifth of the expenditures of the systems of social security comes from tax revenue (see below) - , unemployment benefits of type II, social policy for farmers, education allowances (*Erziehungsgeld*) and maternity benefits (*Mutterschutz*) and payments for war victims and their widows. There are additional expenditures that are not included in the social expenditures but that do have a social dimension such as expenditures in education for pupils and students (0.7 bill euro), the support of housing (1.8 bill euro) and subsidies for the coal industry (3.6 bill euro).

The effect of the governments activity on the distribution of income can be seen by comparing the Gini coefficients for the income distribution before and after taxation and governmental transfers. For the households surveyed in the Socio-economic Panel (Council of Economic Advisers 2003:349), this coefficient is reduced considerably when comparing the market income distribution with the

distribution after government activity (Table 5). It is 39 per cent lower for the united Germany. This means that taxes and transfers have made income distribution more equal. For East Germany, the coefficient even fell by 53 per cent showing the more redistributive nature of government activity there.[6]

Table 5: Income Distribution before and after taxation, Gini Coeffcients 2000[a]

	West Germany	New Länder	Germany
Market income before taxation	0.4459	0.4758	0.4549
Income after taxation and transfers	0.2843	0.2253	0.2777

Source: German Council of Economic Advisers (2002: 350).

The Impact of German Unification

For the transformation of the previously centrally-planned economy in Eastern Germany quite sizable transfers were needed. The magnitude of these transfers, however, is difficult to calculate. The last somewhat official estimate of the transfers was undertaken by the German Council of Economic Advisers (Table 40, 1995).[7] The Council distinguished gross or consolidated transfers of the different layers of the state and net transfers. The net transfers were defined by consolidating the transfers of the different layers, i.e. eliminating double

---

[6] The average income per month in the sample is lowered from 3908 euro to 3 058 euro for Germany. Note that the average here is weighted in the sense that the head of the family receives a different weight than other family members.

[7] For other estimates see Bundesbank (1996) and Boss and Rosenschon (1996).

counting, and by taking into account governmental revenue such as tax revenue in the new states. For 1995, the gross transfers including interest payments and repayment of debt directly associated with unification were estimated at 108 bill euro; net transfers amounted to 82 bill euro or, neglecting interest and repayment of debt, to 64 bill euro. This was 4.6 per cent[8] (unconsolidated between the different layers of government) or 3.6 per cent of the German GDP (consolidated, i.e. without doubling counting) respectively. Of these two, the consolidated figure is the relevant one.

Of the gross transfers of 108 bill euro, 28 per cent went to the public sector, i.e. to the budgets of the new Länder, 22 per cent were provided by the public budgets to private households and 26 per cent went to households through the social security system. Of the transfers to households, 14.6 bill euro flowed to East German households in the pension system; 12 bill euro were transmitted within the unemployment insurance. Unfortunately, only a small part of all the transfers, about a quarter, was used for investment, while the overwhelming part represented and still represents transfers for consumptive purposes including government consumption. This holds true not only for the transfers within the social security systems, but also applies largely to transfers between the layers of government, for instance for paying the over-manned administration in East Germany.

Transfers still go into Eastern Germany, but for a variety of reasons we do not have sufficient data on their magnitude. First, we no longer have a separate macroeconomic accounting for the expenditure side of East German GDP; the last separate status was for the year 1994. Such accounts, however, would make it possible to calculate a balance of payments with the current account deficit for East Germany and thus determine the real resource flow. Second, one cannot

---

[8] The original figure is 4.7; GDP was revised downward.

simply interpret spending of the federal level in East Germany for governmental purposes as transfers, such as the transportation infrastructure or the army, because the federal government spends funds for the same purpose in West Germany as well. Therefore, one would need a norm from which to calculate spending above the norm. Third, the mobility of people, including commuting, makes it more difficult to calculate financial flows to East Germany. For instance commuters pay contributions to the social security system in West Germany, and people do their shopping and pay the value added tax in both parts of the country. Fourth, the regional delineation is complex. With respect to Berlin, only East Berlin belonged to the former German Democratic Republic, but, of course, we do not have separate data for East Berlin. What is more important, it makes little sense in a problem-solving approach to look at the East German region without Berlin. There was also little interest among the political elites emphasizing the transfer concept for fear that East Germans felt they would not get enough and that West Germans believed they paid too much to finance the transfer. Such a debate would be a source of quarrel instead of bringing the people together.

One can argue that the size of transfers has decreased since 1995. There has been economic growth in East Germany, and the tax base has enlarged. With a higher personal income, more contributions were paid into the social security system. Unemployment, though still high, has receded. Governmental programs for the unemployed were scaled down considerably. Specific investment subsidies for the private sector were discontinued so that only the same regional support scheme applies as in West Germany, albeit with higher flows to East Germany due to the lower level of GDP per capita there.

Nevertheless, transfers still flow to East Germany. These include transfers from government to the enterprise sector, from the federal government to the public

budgets of the federal states in Eastern Germany (vertical revenue sharing), within the revenue sharing among the federal states (horizontal revenue sharing), and within the social security system. There are two major types of investment aid to firms: a tax subsidy (*Investionszuschuss*) with a volume of 2.3 bill euro in 2002, and an investment support in the context of regional policy with a volume of 1.9 bill euro in 2002 (*Gemeinschaftsaufgabe regionale Wirtschaftsförderung*). Whereas an investor in the producing sector and the production-related service sector is entitled to the tax subsidy of 12.5 per cent of the investment outlay (25 per cent for small and medium sized firms) according to federal law, the investment support, which can go up to 50 per cent of the investment for small firms in structurally weak areas, is granted upon a filed application and subject to the financial means available. It is administered by the Länder. The tax subsidy was supposed to stop at the end of 2004 but will be extended to 2006. The investment support is a normal policy instrument in regional policy and therefore will continue. With respect to the flows within the governmental system, the federal provides supplementary transfer payments (*Bundesergänzungszuweisungen*) in a vertical revenue sharing. In addition, a scheme to be effective until 2019 has been agreed upon for the flows between the federal layer of government and the East German Länder (*Solidarpakt Ost*). These flows with an annual volume of 3.4 bill euro are intended to finance infrastructure projects (*Sonderbedarfs-Bundesergänzungszwuweisungen*). Together these vertical flows add up to the five states in East Germany amounted to 10.2 bill euro. Adding up the federal supplementary transfer payments with the horizontal flows from the other Länder, the East German federal states received a total of 13.4 bill euro in 2002 (see Table 6 below). The horizontal transfers between the Länder are the implication of the institutional set-up of Germany's revenue sharing (see below). With respect to the flows within the social budget, the West-East transfers are estimated 27.9 bill euro for 2001 (Federal Ministry of Health and Social Affairs 2002, Table 43). This is the

upper bound for flows within the social security system for which there are no data. All amounts sum up to about 45 bill euro, which is about 2 per cent of GDP.

It is apparent that these transfers have affected Germany's fiscal position negatively. Transfers were partly financed by higher taxes, though admittedly only to a minor extent. Nevertheless, taxes had to be raised, and they could not be reduced as in other countries. A larger part of the transfers was financed through credits leading to a doubling of government debt from 0.46 trillion euro (1989) or 42 per cent of GDP to 1.35 trillion euro in 2003 (64.2 per cent of GDP). A debt of 1.42 trillion euro is forecasted for 2004. Transfers and debt have repercussions on the maneuvering space of government in many ways. One aspect is that the interest load is high with 15.2 per cent of the tax revenue being spent to pay interest on public debt. Another consequence is that the option to reduce taxes is severely limited by the interest load for new debt. Thus, even after the 2000-tax reform with its final stage being implemented in 2005, the effective tax rates for German firms are still high relative to the other EU countries. All of this had a negative impact on growth, or, to put it differently, a potential stimulus for economic growth was not available.

There are additional consequences for Germany's economic position. Transfers were organized within the social security system. The share of contributions to social security increased from 15.0 per cent of GDP in 1990 (West Germany) to 17.5 per cent in 2001.[9] It is not clear to what extent this increase can be traced exclusively to the transfers within the system or whether it reflects a general expansion of the welfare state. As an example, nursing care insurance was introduced in 1995 requiring additional contributions amounting to 1.7 per cent of the gross wage or 0.8 per cent of GDP. But even if only part of the higher

---

[9] German Council of Economic Advisers, Annual Report 2002/03, Table 34*

contributions within the social systems is due to unification, it means that the tax on labor has been raised in Western Germany, with a negative impact on employment there. Another effect of the consumptive transfers is that domestic demand increased leading to a real appreciation of the deutsche mark that affected Germany's competitive position until 1995. It seems that West Germany has been partly inhibited by financing the transfers, but it also seems that West Germany was not able to unfold enough economic dynamics for a strong carry-over to East Germany.

The political demand for transfers can be considered as an Achilles heels of German fiscal policy. This demand would be reduced if the catch up process would pick up in Eastern Germany which now stands at 66.2 per cent of the West German GDP per capita of the population including Berlin (2002); it is 71.2 per cent of the German level. Unfortunately, the convergence process has come to a halt since 1997. An important prerequisite for strong regional growth is that initiative and an optimistic mood prevail as the rare examples for a successful regional restructuring and for a successful quick convergence process in Ireland and, on the municipal level, of Pittsburgh show. I hesitate to mention the coastal regions of mainland China as another example. Whereas the majority of people in Eastern Germany seem to have a somewhat optimistic outlook, the PDS, the Party of Democratic Socialism and the political successor of the previous communist SED, appeals to people's feeling of being deprived and still collects up to 20 per cent of the votes in the regional elections. In such an environment, optimism is constrained.

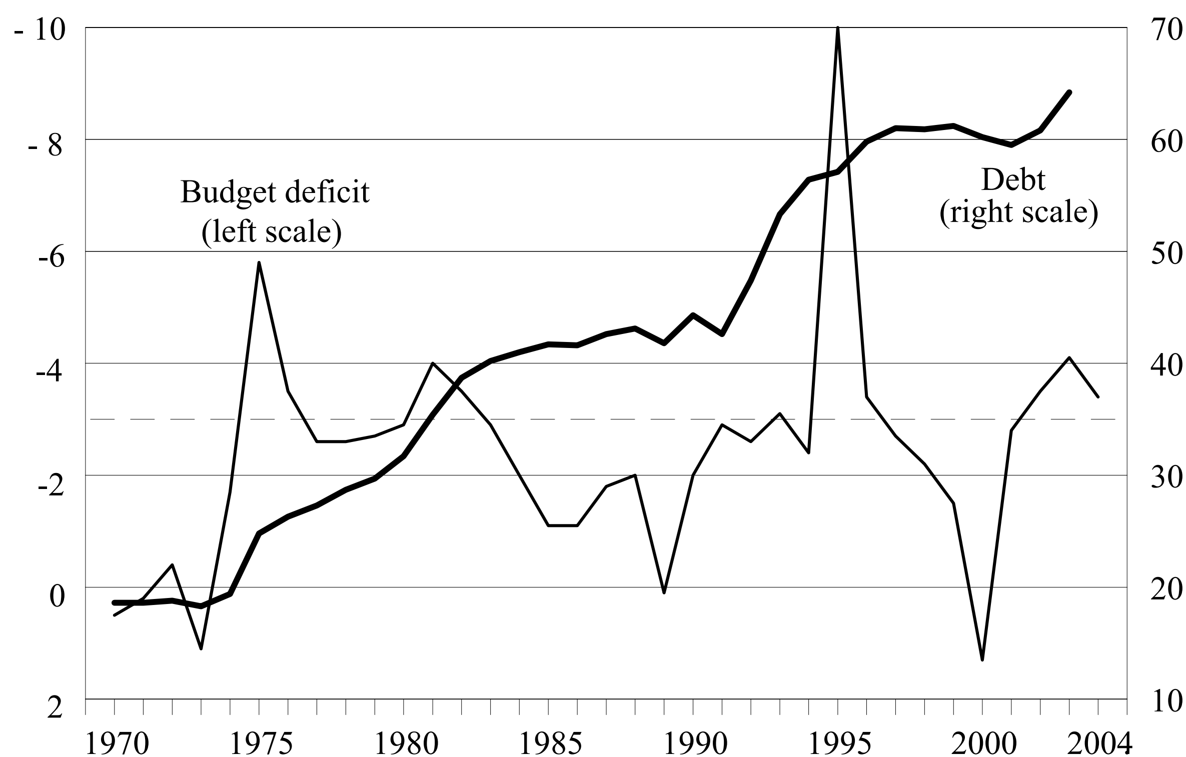
The demand for transfers would also weaken if East Germans were prepared to give up their 100 per cent mentality and if they would accept that the same conditions cannot prevail everywhere in the federal republic and that neither the same income per capita can be reached in each locality of the country, nor the

same public infrastructure can be provided everywhere. The policy issue for Germany then is to get more economic dynamics into East Germany.

Debt

Tax revenue has not been sufficient to finance the expenditures of the state. Since 1990, the deficit of the state budget has been 3.0 per cent on average per year. To finance government expenditures through credit seems to have become a normal business practise. Only in the years prior to the establishment of the European Monetary Union with its entry criteria on the budget deficit and the debt levels was there some restraint on deficit financing. When we look at the 1990s in more detail, the only annual positive balance in the state's budget in the year 2000 is due to the special circumstance of auctioning the licenses for the Universal Telecommunication Systems; without these receipts, there would have been a deficit in that year as well, in the magnitude of 1.2 per cent. The peak in the deficit in 1995 was caused by integrating the debt from the shadow budget of the East German privatisation agency (Treuhandanstalt).

Figure 2: Budget Deficits and Debt, 1970-2004



Germany has seen quite an increase in debt relative to GDP (Figure 2, Table A 1). This ratio has more than doubled from 1970 to 1990 from 18.6 per cent in 1970 to 41.8 per cent in 1989. Since then it rose again by twenty percentage points to 64.2 per cent in 2003. The absolute amount of debt doubled in the 1990s. Only in the 1980s was the budget deficit reduced, and debt increased more slowly in this period. The 1970s and the 1990s were decades in which debt was on a stark rise. Germany has violated the 3 per cent debt to GDP criterion of the Stability Pact for the European Monetary Union in the years 2002, 2003 and 2004. The deficit of 2.8 per cent of GDP in the year 2001 hardly upheld the spirit of the treaty either. Apparently, an international treaty on the important issue of a common European money does not represent a sufficient constraint for government spending.

National institutional arrangements have also not succeeded in restraining the increase in public debt. Thus, article 115 of Germany's Constitution limits the issuing of new debt to the amount of public investments. This requirement has been violated quite often in the last twenty years, because there is a clause in article 115 specifying that if the macroeconomic equilibrium is disturbed, the government may take measures and thus incur new debt, i.e. finance expenditures out of credits or reduce taxes, if these expenditures will lead back to an equilibrium. It has become almost a routine that the government simply proclaims a macroeconomic disturbance once its budget shows a deficit. Governments have not been very choosy in explaining and defining the type of disturbance. For instance, they regularly have pointed to the high rate of unemployment. But this is a phenomenon that has existed for more than two decades, and it has been well known when budgets were passed in parliament. The government also does not take care to prove, as required by the Constitution, that the measures will be appropriate to restore equilibrium. The political process, the public and the press all have become accustomed to not taking the constitutional constraint seriously. Those in charge of the budget violate well established practices and well founded norms. Another institutional feature, that the finance minister has a veto right against expenditures, has not succeeded in restraining debt either. The consequence of using the veto right would only be credible if in the end one is willing to resign, and ministers are reluctant to do that. This instrument was only used twice, by the social democratic ministers Alex Möller in 1971 and Karl Schiller in 1972. Moreover, the ability of the Chancellor to dismiss the minister is simply too strong so that a finance minister is disinclined to use his veto.

A specific concern is the implicit debt of the public insurance systems. This amount equals the sums of deficits that will arise in the social security systems over the next decades being discounted to its present value. In these calculations

it is assumed that the benefits continue to be paid according to the actual legal stipulations and contribution rates remain at their actual level. The aging of the population is taken into account. Assuming a GDP growth rate of 1.5 per cent and calculating the present value with an interest rate of 3 percent, the German Council of Economic Advisers (2003/04: 420) estimates the implicit value of debt of the social security system (including the pension system for government officials and deficits in the deficit of the government) of the period up to 2050 at 270 per cent of the GDP of 2002. This figure indicates the adjustment needs of society if such a debt is to be prevented. According to previous OECD studies, Italy and France have markedly higher implicit debt than Germany (OECD 1997, Table 2).

Distributive federalism

A specific feature of Germany's fiscal policy is its federal structure. Fiscal federalism is rooted in German history, where for centuries people lived in an environment of many principalities without a unified state. Unification only then occurred in 1871, however the regional level continued to play an important role in economic decisions. With this historical background and with the experience of a centralized state under the Nazis, a federal structure was attractive when the new constitution was developed, first to guarantee that regions could voice their preferences and second as a check on excessive power.

As already discussed, according to fiscal federalism and fiscal equivalence the federal governmental level should be in charge of public goods with a spatial dimension extending over the whole political area and that lower levels should be responsible for those public goods that are spatially less extended. Fiscal equivalence, the subsidiarity principle and fiscal federalism are allocation

concepts. They define organizational layers of governments that are consistent with a hierarchy of public goods in their spatial dimension. These concepts thus belong to Musgrave's (1959) allocation branch. Germany has supplemented this allocation concept by equity considerations, i.e. with the distributive branch. Article 72 of the German Constitution expressly contains the target of having similar living conditions in the area of the Federal Republic.

The term living conditions is vague. Looking at economic conditions in terms of productive capacity, measured by GDP per capita of the population, there are differences between the states of Germany. Of course, these are especially strong between states in Western and states in Eastern Germany. In the new Länder (except Berlin), GDP per capita was at about 66 per cent of the German level in 2002; it was a little bit higher in Saxony. Berlin including East Berlin reached 89.0 per cent, Eastern Germany including Berlin was at 71.2 per cent. West Germany with 107.5 per cent was above the German average. Even without the strong differences between Eastern and Western Germany, it is quite normal to have a variance in the economic situation of the Länder. Some of the Länder with greater territory in the West are below average in their GDP per capita. For example, Lower Saxony and the Rhineland-Palatinate reached 84 per cent of the average West German level, with Schleswig-Holstein and the Saarland being one or two percentage points higher. In contrast, the city-states of Hamburg with 170.4 per cent and Bremen with 136.0 per cent were above average. Hessen (123.2), Bavaria (116.8) and Baden-Württemberg (113.1) were also above average.[10]

The requirement of similar living conditions does not, however, refer to GDP per capita. Indeed it could not, since GDP per capita is the result of market

[10] There was quite a change in the regional structure in the last thirty years in Western Germany. The southern states caught up and overtook the northern states, implying that the northern states fell behind.

processes. The requirement of similar living conditions relates to the aspects that the government can control, for instance the supply of the transportation infrastructure and the school and educational system. These goods provided by the government, not all of them public goods in the strict sense as defined in economics but also merit goods. These are goods judged to be so meritorious that most people want them such as kindergartens or schools, but they depend on the capacity to generate tax revenue. Since this capacity diverges between the federal states, a revenue sharing mechanism has been established providing additional income to the states with a lower tax revenue. This system was in place long before German unification; it applies within West Germany as well.

In horizontal revenue sharing, the Länder with a relatively high tax capacity transfer part of their tax revenue to the poorer countries. Thus, Bavaria gave up 2 bill euro of its tax receipts in 2002, amounting to 8 per cent of its total tax revenue in 2002 (to 6 per cent if the tax revenue of the Bavarian municipalities are also included), whereas Lower Saxony received 0.5 bill euro and Berlin 2.7 bill euro (Table 6). Total horizontal flows amounted to 7.4 bill. Note that the criterion used in the revenue sharing, the power to generate tax revenue, apparently deviates from GDP per capita considerably. Thus, Northrhine-Westphalia, with its GDP per capita at about the German average, makes considerable contributions towards revenue sharing, whereas Bremen with a GDP per capita of 136 per cent is a major recipient. In vertical revenue sharing, the federal layer transfers funds to the Länder (*Bundesergänzungszuweisungen*); these flows of 16 bill euro are in addition to the distribution of the revenues of the personal income, the corporate income and the value added taxes. Furthermore, it should be noted that transfers occur in the form of mixed financing (see below).

Table 6: Revenue sharing, bill euro, 2002

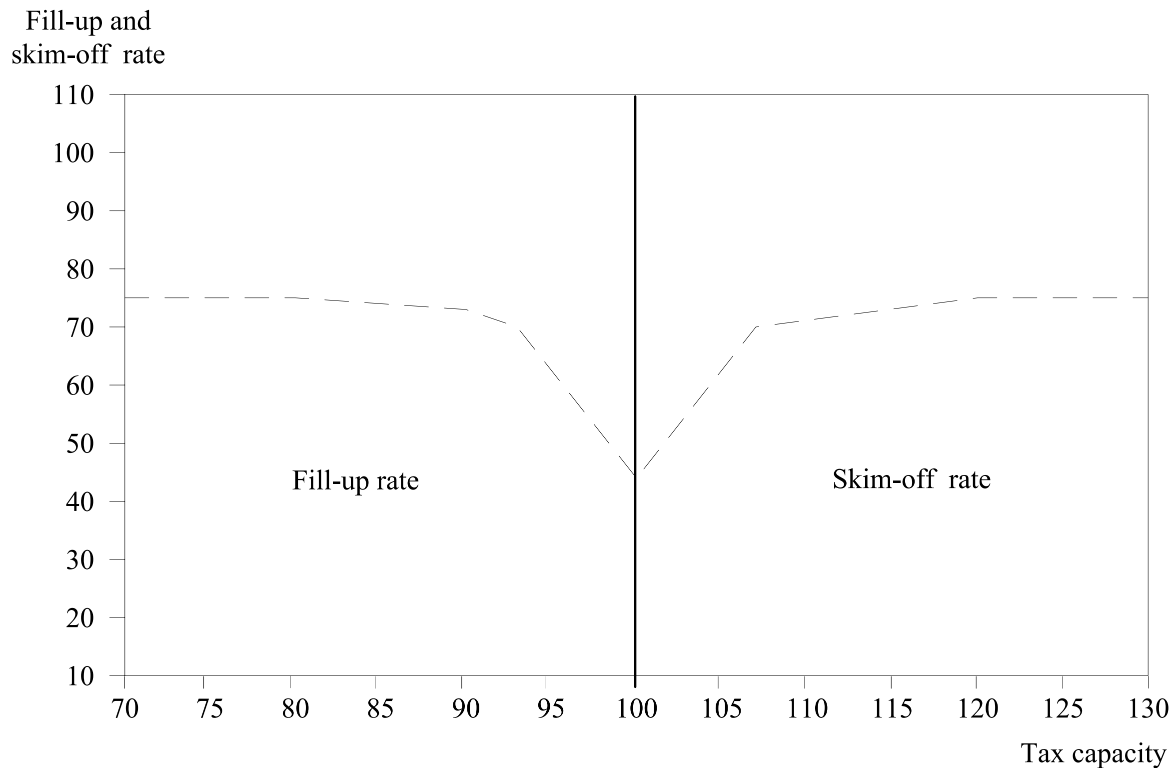
	Revenue sharing between the Länder	Federal supplementary transfer payments	Total
Paying Länder			
Bavaria	-2.0	-	-2.0
Hessen	-1.9	-	-1.9
Baden-Wurttemburg	-1.6	-	-1.6
Hamburg	-0.2	-	-0.2
Northrhine-Westphalia	-1.6	-	-1.6
Total Payments	-7.4	-	-7.4
Receiving Länder			
Berlin	2.7	2.6	5.2
Saxony	1.0	3.2	4.2
Saxony-Anhalt	0.6	2.0	2.6
Thuringia	0.6	1.8	2.4
Brandenburg	0.5	1.8	2.4
Mecklenburg-W. Pomerania	0.4	1.4	1.8
Lower Saxony	0.5	0.8	1.3
Bremen	0.4	0.8	1.2
Rhineland-Palatinate	0.4	0.6	1.0
Saarland	0.1	0.6	0.7
Schleswig-Holstein	0.1	0.3	0.4
Total Receipts	7.4	15.9	23.2

Source: Federal Statistical Office. [Internet: http://www.destatis.de/basis/d/fist/fist023.htm]

The formula for revenue sharing is complex. As a separate aspect, before the revenue of the value added tax is distributed among the federal states according to the population, the weaker Länder receive part of that revenue beforehand (VAT in advance compensation, *Umsatzsteuervorwegausgleich*). When this has been done and when the capacity to raise revenue for the federal states is thus determined, beginning in 2005 the marginal fill-up rate for the receiving countries is 75 per cent of the difference from the average. This applies to those states whose capacity to generate taxes is below 80 per cent of the Länder average. It then falls to 70 per cent until a capacity of 93 per cent is reached. In the remaining difference in capacity the fill up rate goes to 44 per cent. The skim-off rate for the paying states is symmetrical. It starts at 44 per cent for the paying states when their capacity to generate tax revenue is just above 100 per cent. It goes up to 70 per cent for a capacity of 107 per cent and then is 75 per cent at 120 per cent of the capacity (German Council of Economic Advisers 2001: 134). The previous arrangement had been declared unconstitutional by the Constitutional Court in 1999.[11] There are additional provisions defining the expenditures needs of states; for instance, the population of city states is weighted with 135 per cent on the assumption that they have higher expenditures per capita. Moreover, the average skim off rate is capped at 72.5 per cent; 12 per cent of an over-proportional increase in tax revenue relative to the last year is not factored into the revenue of the state paying in.

[11] Prior to 2005, the fill-up and skim off rates were step wise. For instance, the fill up rate was 100 per cent for a capacity to generate tax revenue of up to 92 per cent below the average. This represented an even greater distortion. The fill up rate then fell to 37.5 per cent which was more incentive-compatible than the new solution. Together with the supplementary vertical transfers by the federal level it even reversed the ranking of the states in terms of their capacity to raise taxes.

Figure 3: Marginal fill-up and skim-off rates in horizontal revenue sharing



This system sets the wrong incentives. Federal states that succeed in enlarging their tax base and in generating additional tax revenue have to give up part of their additional tax revenue to other federal states. This reduces the incentives to attract firms and economic activities in order to enlarge the state's tax base, it also weakens the incentive for a long run growth strategy of the individual states. The mechanism helps to cover up political mistakes and does not assign the responsibility for failure to those who cause failure. Moreover, it prevents an institutional arrangement in which the federal states would be given more tax autonomy while at the same time taking over more responsibility for the result of their policies. The incidence of the given set-up of revenue sharing would be less severe if the fill up rate were lowered much more when the states approach the average of the other states. Then the poorer states would be helped whereas

those closer to the average would have to rely on their own initiative. But such an approach is hard to conceive given the political orientation in Germany.[12] It is fair to say that German fiscal federalism is a distributive federalism, not a competitive one.

In addition to this formal mechanism of revenue sharing, both the federal government and the Länder must provide aid if one of the federal states becomes insolvent. This is required by the principle of cooperation and support, the *Bündisches* Prinzip, which is one of the many principles that rule in German public finance. Thus, according to a decision of the Constitutional Court, both the federal level and the Länder had to step in to help when Bremen and the Saarland fell into financial distress (*Haushaltsnotlage*) in 1992. Actually, only the federal government provides funds for the period between 1994 and 2004; it can be expected that these transfers will be continued after that period. In 2003, in view of its financial distress, Berlin asked the Constitutional Court for a similar solution. This trend shows that states in financial distress can count on being bailed out. It also implies that the financial markets can serve as a controlling mechanism only in a very limited way.

It should be noted that the German system of fiscal federalism also widely uses the instrument of mixed-financing where the federal layer and the Länder finance projects together, as a general rule, on a half and half basis. For example, Article 91a of the German Constitution designates mixed-financing to support the specific joint-projects (*Gemeinschaftsaufgaben*) of renovation and expansion in university construction, improvement in regional economic structure and improvement in agricultural structure and coastal protection. A total of 3.0 bill euro was dedicated to such projects in 2002. Other collaborations of the federal layer and the Länder that come under mixed-financing include the

[12] Compare the proposal of the German Council of Economic Advisers (2001: 132 on).

promotion of research and development (3.2 bill euro), social housing construction (0.7 bill euro), regional transportation improvements (1.5 bill euro) and city construction and development (0.4 bill euro). Although mixed financing has intensified in the last three decades, it is now common opinion that this type of financing should be reduced in order to obtain a clearer assignment of responsibilities. In addition, the institutional set-up for the voting procedure in many areas where both the Bundestag and the Bundesrat have to agree, comes under discussion.

Moreover, it should be noted that flows between the regions also take place in the social security systems. Thus, labor market districts with high unemployment receive funds to pay the insurance benefits from areas in which the unemployment rate is low, but where greater contributions to the insurance are paid. Similarly, in the other branches of the pay-as-you go systems of social security, the regions with a strong economic activity pay in whereas the regions with a lower performance receive funds. Unfortunately, there is not sufficient information on these flows.

The Strategy of Fiscal Policy: Demand Side versus Supply Side Approach

In Germany's fiscal policy, traditionally the debate between the two concepts of the demand side versus the supply side approach tend to pop up quite regularly. This discussion has several aspects relating to the business cycle, to growth and to the philosophical position with respect to the relevance of the demand versus the supply side for economic policy.

Recessions are characterized by a lack of aggregate demand. It is now common opinion that one should let the automatic stabilizers operate and that one should

accept that thereby a budget deficit arises or increases. But there is a cap placed on the budget deficit by the stability pact motivated by defending the stability of money. Those who favor aggregate demand as an important policy variable do not accept this restraint; they are not as concerned with the impact of debt on the stability of money. Quite a few, among them the trade unions, request that the government explicitly expands aggregate demand in addition to letting the automatic stabilizers play. They put a large weight on the demand stimulus, directly associated with government spending. This group is a minority among German economists, including the Deutsche Institut für Wirtschaftsforschung in Berlin with a strong leaning towards demand policy. The majority of German economists, among them the Kiel Institute for World Economics and the Council of Economic Advisers, points to the long-run and the short-run effects of such a demand stimulus. First, it increases debt because the political process has not been able to balance the budget over the cycle. Institutional restraints simply are not sufficient to control the increase in debt. Thus, the demand stimulus comes at high costs, and it threatens the sustainability of public finances. Second, it is doubtful whether aggregate demand actually would be stimulated. Government demand accounts for only 20 per cent of aggregate demand. If consumers anticipate the long-run effects on debt and expect taxes to be raised in the future, for instance if they see unemployment rising, they would become uncertain about the future. Therefore they may tend to increase their savings, which in turn would reduce the most important part of aggregate demand, consumption. Likewise, entrepreneurs may become more cautious with their investment demand. These psychological effects become especially relevant, when market participants lose confidence, for instance, when a government uses budget deficits over and over again and when it is clear that politicians use deficits as a way out of a their political malaise.

From the point of view of growth policy, a short-term demand stimulus is an even more questionable concept since growth policy needs a long-run orientation. Whereas it is true that a growth process requires sufficient aggregate demand and that weakness of demand would curtail the growth rate, growth itself must come from the supply side, i. e. from an increase in the labor force, from capital accumulation, from technological innovations and institutional improvements. Moreover, in the long-run the issue of sustainability becomes more important.

German fiscal policy has some experience with demand stimulation. For example, the high growth rates of 1990 and 1991 were the result of a Keynesian demand stimulus, initiated by governmental transfers to East Germany, most of them consumptive. Distortions in the construction sector and the recession of 1993 were the consequences. Then finance minister Lafontaine, after some government restraint with respect to expenditures since 1992, used the policy of demand stimulus expanding the expenditures of the federal layer by about four per cent in an approach similar to the first two years of the Mitterand presidency in France. He failed after half a year because the negative impact became apparent quickly.

The Erosion of Confidence

It seems to be an iron-clad law, that during their term in office finance ministers experience an erosion of their reputation with a loss of public confidence. Most of them start out with a strict consolidation plan and a clear determination to keep their budget in balance so that debt does not increase. Only a few can live up to their promise. Among them were Schäffer, who accumulated public funds in the 1950s (it is said in preparation for being able to pay for the Bundeswehr

when it was established), and Stoltenberg, who reduced the budget deficit in the 1980s. For most of the others, new and unexpected political problems arose that required additional financing, as in a recession for example; or the government had to win an important election and therefore increased spending; or their Chancellor simply changed his line of politics. More recently, fiscal policy has had to step in when the social security systems run out of finances (see below).

When Eichel took over the position of finance minister from Lafontaine in the spring of 1999 he announced a strategy of consolidation. Instead of Lafontaine's philosophy of aggregate spending, Eichel promised to consolidate the budget. According to his consolidation plan, the federal budget was to be balanced in 2004, this then was shifted to 2006 and eventually given up. Surprisingly, it was after the election in the fall of 2002 that the dire situation of the budget became known to the public. Eichel at first had introduced a new principle into fiscal policy, that of sustainability, a concept stressed by the German Council of Economic Advisers in its Annual Reports in the 1990s. According to this concept, popular from environmental economics, the long-run effects of fiscal policy, i.e. the opportunity costs for future generations, are to be taken into account. Most importantly this relates to the long-run effects of increased government debt. However, Germany's budget deficit increased from 1.5 per cent to GDP in 1999 and 1.2 per cent in 2000 (if one excludes the receipts from the sale of licenses for the Universal Mobile Telecommunication Systems (UMTS) to 3.5 per cent in 2002 and an (expected) 4.1 per cent in 2003. These figures apply to the state in total, including the social security system and all layers of government. It is the unpleasant job of the finance minister to be held responsible not only for the federal government's actions but also for the expenditures and revenue of the state as a whole. This accountability relates not only to the social security systems, where the federal layer (together with the Länder) has the authority to set the laws, but also to the Länder and

municipalities, where the federal minister has no direct control over their budgets. Nevertheless, spending by the Bund creates the overwhelming part of the budget deficit, which equals roughly two thirds, though varying through the years. Moreover, the federal government has the responsibility to define the institutional setting for fiscal policy, including the taxation system.

The increased budget deficit is only one of the indicators of Germany's disappointing fiscal policy situation. Thus, it now has become almost customary that a budget, which has been passed in parliament, will not live through the year. The budget does not cover all the expenditures that arise unexpectedly, and it is too optimistic with respect to expected revenue so that a revised budget, then with a much higher deficit, becomes necessary in autumn to have a formal financing for the year's expenditures. It is fair to say that the budget deficits are not caused by a spending spree. Expenditures of the federal level increased by 2.3 per year from 1999 to 2003 in nominal value, and those of all three layers of government together rose by 2.1 per cent. A major factor in the budget deficits is the poor showing of tax revenue. Total tax revenue has declined by 22 bill euro from 2000 to 2001, i.e. by 4.4 per cent. It remained at about that lower level in 2002 and increased slightly in 2003 by 1.1 per cent according to the taxation forecast of the German Council of Economic Advisers. In the past, the recessions of 1975, 1982 and 1992 did not lead to reduction of tax revenue, only in 1975 revenue more or less stagnated. Thus, one must look for one-time causes or for structural factors to explain the recent decline. One possible explanation is that the fall in revenue in 2001 simply is the effect of the tax reform. Thus, firms were allowed to apply (unused) depreciation allowances of periods prior to the tax reform, and the revenue of the corporate income tax fell by 20 per cent. But other taxes also brought a lower revenue, namely the income tax including the tax on wage income, the value added tax and the local business tax. It remains to

be seen whether structural issues are behind the fall in tax revenue. This would have long-run implications for Germany's fiscal policy position.

A specific issue, also showing the actual strains of Germany's fiscal policy stance, is the reduction of total revenue of the municipalities since the mid 1990s relative to nominal GPD by about one percentage point. One aspect is that the revenue of the local business tax has fallen by from two to one per cent of nominal GDP in the last three decades. Another aspect is that the revenue of municipalities relies to a large part on transfers (more than one third); only one third of the revenue comes from taxes. The problem is that municipalities do not have their own tax base and that a reform is needed in which their will receive more taxation autonomy. This, however, can only be achieved in a major restructuring of Germany's fiscal federalism.

Fiscal Policy – The libero of social policy

A major problem of German fiscal policy is that it has to step into the breach when the social security systems creates a deficit. Fiscal policy thus is like the libero in soccer, representing the last resort. The finance minister has to help out when the rising expenditures of the social security system can no longer be financed from contributions. It is remarkable that the elasticity of transfers with respect to nominal gross domestic product is surprisingly high. In the period 1998 – 2002 it amounted to 4; an increase of nominal GDP in the whole period of 9 per cent was accompanied by an increase in transfers of 39 per cent. Indeed, transfers to the social security systems have risen considerably in that period (Table 7). In addition, the social security system has developed a sizable deficit amounting to 6.6 bill euro or 1.4 per cent of its expenditures. Part of this high elasticity can be explained by the automatic stabilizers operating when nominal

economic growth was low, only at around two per cent. That part of the high elasticity is not disturbing because in periods of higher nominal, and of course more importantly of higher real growth, transfers would increase less. It is, however, a different story that a large part of the increase is structural so that the higher elasticity expresses a new long-run relationship, i.e. an increased absorption of transfers by the social security system. Unfortunately, with the expansion of the welfare state the calculation of elasticities of previous periods as points of orientation would not be too helpful because the structural relationship has changed. Thus, the transfers from the federal budget to the social security system account for 25 per cent of the federal expenditures. This proportion has doubled since the 1980s; it was 15 per cent in 1995 (German Council of Economic Advisers 2003: 257).

Table 7: Received Transfers of the social security systems, bill euro

	Transfers	Budget surplus or deficit
1998	61.3	2.7
1999	70.9	5.4
2000	72.5	0.3
2001	78.3	-3.3
2002	86.2	- 6.6
2003	90.9	- 6.4 [a]

[a] Forecast of the German Council of Economic Advisers.

Source: Federal Statistical Office, Macroeconomic Accounts.

In the last thirty years politics has done away with some of the buffers that existed between the deficit of the social security system and fiscal policy. Thus, the precautionary mechanism of the pay-as-you-go system such as reserves of one year's expenditures in the pension system was given up. In recent years, the

Schröder government even reduced the required reserve of the pension system from one month's expenditure to those of 0.8 month, then to 0.5 month and now to 0.2 month in order to gain a short-term interim tiny source of finance. This implies that fiscal policy has to take over the deficit of the social security system as it arises, making governmental expenditures more volatile. Another repercussion would be that the responsibility for welfare recipients capable of working will be transferred from the municipalities to the federal level. This means that a decentralized institutional buffer between social policy and fiscal policy will be abolished.

Taking the future aging of the population into account, the opposite development would have resulted, namely to introduce additional buffers between the two areas of policy so that fiscal policy can follow a steady course and so that declining revenue in the social security systems in a recession is cushioned by the sufficient reserves of these systems. Moreover such a buffer is needed to offer protection when the implicit debt of the social security system becomes explicit. Thus, the simple concept of the elasticity of transfers to the social security system from tax revenue in relation to nominal growth can be used to express the knot between the policy issues facing Germany. At the same time it shows, how important the reform of the social welfare systems is for fiscal policy to become credible again.

Fiscal policy under new international constraints

Although stepping into the breach as a financier of last resort for the different branches of the social security system is one of the new job requirements for a finance minister, fiscal policy also faces a new international environment.

An international restraint for German fiscal policy arises in the context of the stability pact in the European Monetary Union. If this pact would be taken seriously, which does not seem to be the case, Germany still has to allocate the responsibility to the three layers of government. The federal layer should be responsible to control the deficit of the social security systems, but it cannot directly influence the expenditures and the budget of the Länder with their municipalities. So far, there is only an agreement that the layers of government take into account the implications of their behavior with respect to deficits in their medium-term financial planning.

The solution must exist in a binding agreement between the federal layer and the Länder in which they split their responsibility to prevent excessive deficits. In such an internal stability pact, the obligations of the European Monetary Union's stability pact would have to be broken down for the three layers of government, while taking into account such factors as sensitivity of expenditures at these levels with respect to the cycle and, of course, the structure of the expenditures. Thus, the permissible deficit of 3 per cent could be allocated in accordance with the proportions of the expenditures of the federal level and the Länder level if one excludes the municipalities. This would be half and half.

A much more important change in the international environment is that most factors of production, capital, technology and also highly-qualified labor, as well as portfolio capital have become more mobile. These factors of production have an exit option, i.e. they can avoid national taxation if they simply move to another place abroad or into the shadow economy at home. According to the concept of locational competition, the maneuvering space of national states and fiscal policy is reduced (Siebert 2000). Consequently, it becomes harder to tax these mobile factors of production. In the future, this change will also apply, at least to some extent to the choice of residence of pensioners in Europe and

especially in the euro area. Of equal importance is that national policy has to react to tax reductions elsewhere. This environment will not make it easier for German fiscal policy to solve the structural issues it faces, including high debt, large transfers to the social security systems, a sizable implicit debt and a distributive federalism.

The attempts to restrain this tendency of locational competition by international macroeconomic cooperation are not too promising, even within the European Union. Some of the EU member states are not prepared to cede their national sovereignty in these matters; they are not willing to renounce their own options in this competitive game in order to make it easier for the finance minister of another country. Thus, it can be expected that the European Union will not go beyond some agreements of minimum standards in taxation as we already know them for the minimum rates for the value added tax. For instance, some of the distortionary business taxes representing strong location incentives for production or holding companies may be prevented in the future. Macroeconomic coordination in this area beyond the European Union is a fruitless attempt, anyhow. Fiscal policy will have to live with the exit-option of the mobile factors of production.

Appendix

Table A 1: Different Shares of the state in per cent of GDP [a]

Year [b]	Expenditures	Taxes and Contributions	Taxes	Budget	Gross debt [c]	Interest [d]
1950 [e]	31.6	30.3	21.3	0.6	19.3	n.a.
1960	32.9	33.6	23.5	3.0	18.7	n.a.
1970	39.1	34.9	23.8	+0.5	18.6	4.5
1971	40.6	35.9	24.3	+0.2	18.6	4.5
1972	41.6	36.2	24.0	-0.4	18.8	4.5
1973	42.1	38.2	25.2	+1.1	18.3	4.7
1974	45.6	38.5	25.1	-1.7	19.4	5.3
1975	49.9	38.5	24.1	-5.8	24.8	6.1
1976	49.1	39.9	24.9	-3.5	26.3	6.8
1977	48.7	40.8	25.9	-2.6	27.3	7.0
1978	47.5	40.1	25.4	-2.6	28.7	6.9
1979	47.2	40.0	25.3	-2.7	29.7	7.3
1980	47.9	40.3	25.3	-2.9	31.7	8.1
1981	48.8	40.1	24.5	-4.0	35.4	9.9
1982	48.9	40.1	24.2	-3.5	38.7	11.9
1983	47.7	39.6	24.2	-2.9	40.2	13.0
1984	46.9	39.8	24.3	-2.0	41.0	12.9
1985	46.3	40.0	24.4	-1.1	41.7	12.8
1986	45.4	39.5	23.9	-1.1	41.6	12.8
1987	45.8	39.6	24.0	-1.8	42.6	12.5
1988	45.3	39.3	23.8	-2.0	43.1	12.4

1989	44.0	39.7	24.4	+0.1	41.8	11.4
1990	44.5	38.1	23.1	-2.0	44.3	12.2
1991	47.1	39.8	23.5	-2.9	42.6	13.1
1992	48.1	40.5	23.9	-2.6	47.4	14.9
1993	49.3	41.1	23.9	-3.1	53.3	15.0
1994	49.0	41.5	23.9	-2.4	56.4	15.8
1995	49.4	41.3	23.5	-10.0	57.1	15.9
1996	50.3	42.1	23.8	-3.4	59.8	16.4 [f]
1997	49.3	42.1	23.5	-2.7	61.0	16.6
1998	48.8	42.1	23.9	-2.2	60.9	16.1
1999	48.7	42.8	24.9	-1.5	61.2	15.5
2000	45.7	42.9	25.4	+1.3 [g]	60.2	14.5
2001	48.3	41.2	23.7	-2.8	59.5	15.2
2002	48.5	40.6	23.2	-3.5	60.8[i]	14.7
2003 [h]	49.2[i]	40.8[i]	23.2[i]	-4.1[i]	64.2[i]	15.2
2004 [h]	48.5[i]	40.7[i]	n.a.	-3.4 [i]	65.7	15.9

[a] All shares in current prices according to the Macroeconomic Accounts, European System of Macroeconomic Accounting, basis 1995. - [b] Until 1990 West Germany, since 1991 Germany. - [c] For West Germany until 1989 according to ESMA 1979. - [d] Interest payments for public debt in relation to tax revenue. - e Excluding the Saar and West Berlin. - f Tax revenue is reduced since 1996 by the child allowances which are considered as a negative tax and which are netted out.- g Including the revenue from auctioning the licenses for the Universal Mobile Telecommunication Systems (UMTS), amounting to 2.5 per cent of GDP. – h Forecast of the Kiel Institute. – i Council of Economic Advisers Annual Report 2003/2004.

Source: Federal Statistical Office, Kiel Institute of World Economics, own calculations.

Table A 2. GDP per Capita, 2002 [a]

State	Relative to the German Average	Relative to the West German Average
Baden-Württemberg	113.1	105.2
Bavaria	116.8	108.6
Berlin	89.0	82.8
Brandenburg	66.7	62.1
Bremen	136.0	126.5
Hamburg	170.4	158.5
Hessen	123.2	114.6
Mecklenburg-Pomerania	66.1	61.5
Lower Saxony	89.9	83.6
Nordrhine-Westphalia	100.5	93.5
Rhineland-Palatinate	90.1	83.8
Saarland	93.4	86.9
Saxonia	67.9	63.2
Sachsen-Anhalt	66.1	61.4
Schleswig-Holstein	91.4	85.0
Thüringen	66.2	61.6
Germany	100.0	93.0
Western Germany	107.5	100.0
Eastern Germany[b]	71.2	66.2

[a] Per Inhabitant, in current prices. – [b] Including Berlin

Source: Arbeitskreis Volkswirtschaftliche Gesamtrechnungen der Länder (http://www.statistik-bw.de/Arbeitskreis_VGR/)

References

Boss, Alfred, and Astrid Rosenschon. 1996. *Öffentliche Transferleistungen zur Finanzierung der deutschen Einheit: eine Bestandsaufnahme*. Kiel Discussion Papers 269. Kiel: Institute for World Economics.

Boss, Alfred, and Astrid Rosenschon. 2002. *Subventionen in Deutschland: Quantifizierung und finanzpolitische Bewertung*. Kiel Discussion Papers 392/93. Kiel: Kiel Institute for World Economics.

Boss, Alfred, and Thomas Elendner. 2003. *Steuerreform und Lohnsteueraufkommen in Deutschland. Simulationen auf Basis der Einkommenssteuerstatistik*. Kiel Working Papers 1185. Kiel: Kiel Institute for World Economics.

Deutsche Bundesbank, 1996. Zur Diskussion über die öffentlichen Transfers im Gefolge der Wiedervereinigung. In: *Monatsbericht Oktober 1996*, pp. 17-31.

Federal Ministry of Health and Social Security. 2002. *Sozialbericht 2001*. Available from World Wide Web: (http://www.bmgs.bund.de/download/broschueren/A101.pdf).

German Council of Economic Advisers. 1995. *Im Standortwettbewerb*. Annual Report 1995/96. Stuttgart: Metzler-Poeschel.

German Council of Economic Advisers. 2001. *Für Stetigkeit – Gegen Aktionismus*. Annual Report 2001/2002. Stuttgart: Metzler-Poeschel.

German Council of Economic Advisers. 2002. *Zwanzig Punkte für Beschäftigung und Wachstum*. Annual Report 2002/2003. Stuttgart: Metzler-Poeschel.

German Council of Economic Advisers. 2003. *Staatsfinanzen konsolidieren – Steuersystem reformieren*. Annual Report 2003/04. Stuttgart: Metzler-Poeschel.

Musgrave, Richard A., and Peggy B. Musgrave. 1989. *Public finance in theory and practice*. 5th ed. New York: McGraw-Hill. first published as: Musgrave, Richard A. 1959. The theory of public finance. A study in public economy. New York: McGraw-Hill.

Olson, Mancur jr., 1969. The Principle of "Fiscal Equivalence": The Division of Responsibilities among Different Levels of Government. *American Economic Review* 59: 479-487.

Organisation for Economic Co-operation and Development. 1997. *Maintaining Prosperity In An Ageing Society: The OECD study on the policy implications of ageing - Fiscal alternatives of moving from unfunded to funded pensions*. Working Paper AWP 5.2. OECD. Paris. Available from World Wide Web: (http://www.oecd.org/dataoecd/21/41/2429222.pdf).

Siebert, Horst, 2000. *Zum Paradigma des Standortwettbewerbs*. Walter Eucken Institut, Beiträge zur Ordnungstheorie und Ordnungspolitik 165, Tübingen: Mohr Siebeck.