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Fiscal Federalism — an International Comparison*

By Bernhard Seidel** and Dieter Vesper***

Summary

In federal systems it is necessary to find the best way to combine the advantages and disadvantages of centralization and decentralization. In principle, there are two opposing approaches to the organization of fiscal relations. The first one is governed by the idea of competitive federalism, the second one by the idea of cooperative federalism. The goal of competitive federalism is to enable individual regions to shoulder more responsibility for their own affairs by giving them sufficient access to independent sources of revenue. In the cooperative model individual regions are more dependent on external funds. This approach is exemplified by Germany, while the idea of competitive federalism is realised more fully in the U.S.A. Swiss and Canadian federalism contain elements both of the competitive as well as of the cooperative approach.

The characteristics of fiscal federalism in Western countries contain several useful lessons. The responsibilities of different levels of government should be prevented from overlapping. At each level, tasks and adequate financial resources should correspond with one another. The sharing of responsibilities and of corresponding financial arrangements should be reduced to a minimum. The power to tax and to design tax policy should allow the various levels of government to receive their fair share of the benefits of economic development and to compete with other regions for companies and people. To improve transparency and facilitate fair competition, however, federal law should make the basis of assessment as uniform as possible. Giving all levels of government access to uniformly productive sources of revenue is an argument in favour of joint taxes. Nevertheless, individual jurisdictions should have the possibility to vary their share of joint taxes. Moreover, efficiency considerations call for the uniform administration of taxes throughout the federation. This requires mutual trust and adequate checks and control mechanisms. In order to facilitate fair competition between regions, different methods of revenue sharing should be utilised. Such schemes usually contain both horizontal and vertical elements. The resulting transfer payments should be general rather than specific.

1. Introduction

In federal systems, the powers and responsibilities must be divided up between central government and individual states in such a way as to enable the center to effectively carry out its duties for the nation as a whole, while allowing the lower levels of government to pursue their own regional goals at the same time. Thus, the main challenge is to find the best way to combine the advantages and disadvantages of centralization and decentralization respectively.

In principle, there are two opposing normative models of organizing domestic fiscal relations. The first of these models is primarily inspired by distributive goals. Accordingly, revenue sharing is used as a tool to adjust "unequal"

living conditions. This approach is exemplified by Germany, where the federal division of labor allows the lower levels of government very little discretion with regard to gen-

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erating revenue. On the expenditure side, the system is characterized by an elaborate framework of domestic fiscal relations. Frequently, powers and responsibilities are shared by various levels of government, which regularly results in lengthy negotiations before the necessary broad-based consensus can be reached. There are many responsibilities that cannot be discharged independently. Equally, the extent of leveling is considerable.

The second model centers on allocative considerations. "Uniform living conditions" are not to be achieved by correcting the outcome of market forces, but by letting each region compete on the basis of its own comparative advantage. This approach is governed by the idea of "competitive" rather than "cooperative" federalism. The principles of subsidiarity and benefits received provide an intellectual background for this approach. Above all, the goal is to enable individual regions to shoulder more responsibility for their own affairs by giving them sufficient access to independent sources of revenue. If regions are less dependent on external funds they have a stronger incentive to use their resources economically and to improve their own tax base, because any resulting budget surplus will not be offset by corresponding cuts in the transfers they receive through revenue sharing. This approach has been adopted in the United States. As opposed to the situation in Germany, individual states can choose their own tax policy in the USA. There is no coordinated taxation, such

as Germany's "joint taxes" (*Gemeinschaftssteuern*). Some considerable differences can also be found with regard to the division of responsibilities.

2. USA

2.1 Division of responsibilities

The relatively great independence of individual states is not reflected in financial flows at the various levels of budgeting (Table 1). Thus, the federal level carries relatively much weight in numerical terms as a result of, above all, high military expenditures and interest payments. Transfer payments from the federal government to state and local governments are also pretty substantial. They reflect health-related and unemployment benefits. Unemployment insurance is administered by the states and topped up with grants from the federal government. The states determine the level of contributions to unemployment insurance as well as the criteria of eligibility for benefits. As a result, the various parameters of the system, such as the levels of taxable income, contributions and benefits, vary considerably between some of the states (Committee on Ways and Means 1998). The level of federal grants for these programs is determined by the states' economic strength and capacity to generate revenue.

Table 1

USA: Revenues and Expenditures of Federal, State and Local Government
in % of Gross Domestic Product

	Total		Federal		States and Local Authorities	
	1992	1996	1992	1996	1992	1996
Direct taxes	12,5	14,4	9,9	11,7	2,6	2,7
Indirect taxes	8,4	8,2	1,4	1,3	7,0	6,9
Social security contributions	7,5	7,5	-	-	-	-
Fees, fines and penalties	0,4	0,4	0,0	0,0	0,4	0,4
Transfers from other government subsectors	-	-	0,2	0,1	2,9	3,0
Other	2,2	1,9	1,3	1,2	0,9	0,7
Total Receipts	31,0	32,4	12,7	14,3	13,8	13,6
Final consumption expenditures	16,4	14,8	7,3	5,9	9,1	8,9
Interest	4,0	4,5	3,8	3,6	1,1	0,9
Current transfers	13,8	13,7	6,6	6,6	2,8	2,9
Subsidies	0,5	0,5	0,5	0,4	0,0	0,0
Social security benefits	12,9	12,9	2,2	2,2	2,8	2,9
Transfers to other government subsectors	-	-	3,6	3,7	-	-
Other	0,4	0,3	0,4	0,3	-	-
Gross fixed capital formation	1,8	1,7	0,3	0,3	1,6	1,5
Capital transfers	1,8	0,9	0,2	0,2	0,8	0,8
Total Expenditures	37,7	35,6	18,1	16,5	15,2	14,9

Source: OECD: National Accounts, 1984–1996.

Unlike the situation in Germany, for example, public education is financed mainly at the local level. Individual school districts decide on matters of school policy. However, state governments pay for some of the costs of public schooling. At the postsecondary level, state governments bear immediate responsibility for state universities and colleges, even though a significant share of education costs is paid for privately. Local governments are responsible for the police and the fire department. Again unlike the situation in Germany, costs for the administration of public finance are incurred at all levels of budgeting in the USA, including local governments.

Federal grants account for approximately one-fifth of state and local expenditures. Most of these funds are earmarked for specific purposes, while others are made available as general, or unspecified, grants. These transfers take the form either of block grants for particular areas, such as education, health, and welfare, or of grants targeted at specific projects that must be applied for on a case-by-case basis (Stotsky, Sunley 1997). The criteria for the horizontal distribution of grants usually includes the size of the local population, local economic strength as well as local efforts to raise taxes, or the cost of providing public services. The federal share of state expenditures varies from 50 to 80%, while the state share of financing local projects and services is clearly smaller than 50%.

State governments determine their own fiscal policies. However, they are frequently bound by their own state constitutions to balance their budgets. This does not necessarily mean that budget plans are actually carried out as originally adopted. Thus, some states allow budget deficits to be carried over to the next fiscal year. Others only insist on balancing the budget for administrative expenditures, while investments, or the "assets side" of the budget, can be financed by issuing debt. Similar rules apply to local governments. The debts of state governments are not secured by federal guarantees. Instead, rating agencies determine the creditworthiness of individual states, and thus the interest rates they have to pay on their bonds. The federal government exerts some influence in this area, however, by exempting interest earned on state and municipal bonds from the federal income tax, which makes these securities more attractive to investors (Stotsky, Sunley 1997, p. 375).

2.2 Tax policy

In the USA individual states determine their own tax policy. There are no shared taxes, and tax rates as well as the levels of taxable income vary significantly from state to state. This is also true at the local level.

Apart from the federal government, most states and many local governments raise income taxes. However, income taxes paid at the lower levels of government are

deductible from the amount of income subject to the federal income tax. Only a few states have no income tax at all, while the levels of taxable income vary considerably throughout the states. Thus, in some states profits and interest earnings are totally or partly exempt. Likewise, there are huge differences in the treatment of pensions and unemployment benefits. Tax rates, deductions and tax brackets vary substantially among some of the states. In the "high-tax" group of states, rates range from 5 to 11% of taxable income (ACIR 1995a, p. 49ff.). Local income taxes amount to 1 or 2% of taxable income.

In the USA corporate income taxes are also imposed by both the federal government and many state governments. As in the case of individual income taxes, it is very hard to calculate the differences in the effective burden that corporate income taxes at the regional level impose on companies. State-by-state comparisons show that the higher rates range from 4% to 12% (ACIR 1995a, p. 74 ff.).

In the American tax system, there is no value-added tax with uniform rates at the federal level. Instead, many states impose so-called general sales taxes which are collected in the form of a certain surcharge on the purchasing price of those goods that are subject to the tax. Local sales taxes must be added to this in many states. Rates vary from 3 to 7% across the states, while local rates range from 1 to 4%.

2.3 Revenues and expenditures by state

In view of the variety of taxes, rates, levels of taxable income, and the independence of the various levels of government with regard to tax policy, it should come as no surprise that revenue levels differ so much between the states and their localities. Northeastern and Mid-Atlantic states generate the most revenue, while southeastern and southwestern states form the bottom of the list (Table 2). Huge differences can also be found within those regions. In 1994, the most recent year for which data are available, the states with the strongest capacity to tax collected three times as much revenue as those with the weakest capacity to tax. Without the two strongest states in terms of tax collection, however, the gap narrows considerably: Revenue in the stronger regions is then roughly twice as high as in the weaker regions.

A comparison of state and local revenue with transfer payments from the federal government shows that federal grants play only a minor role in the financial position of lower-level units of government. As a result, these grants contribute only very little to making the distribution of fiscal resources more equal. At the same time, they do not really correspond to the regional distribution of income, even though payments per person vary substantially from state to state. States where revenue from taxes is lowest tend also to receive the smallest grants from the federal

Table 2

USA: Personal Income, State and Local Revenues and Expenditures 1994¹⁾
per Capita in US-\$

	Personal Income	Revenues	Inter-governmental from Federal	Taxes					Other Revenues	Expenditures Total
				Total	Sales Tax	Personal Income Tax	Corporate Tax	Property Tax		
<i>New England</i>	28630	5293,075	932,6989	2844,297	709,5891	707,9777	159,4599	1115,596	1516,079	5351,929
Connecticut	33191	5513,1	865,3	3443	1012,4	683,4	214,5	1338,1	1204,8	5782,4
Maine	20831	4637,4	949,7	2354,5	720,6	496,5	74,3	946,4	1333,2	4438,1
Massachusetts	29441	5469,6	943,6	2834,4	595,2	941,7	175,9	984,5	1691,6	5578,1
New Hampshire	26462	4356,1	836,4	2192,8	427,1	31,7	127	1444,5	1326,9	4300,2
Rhode Island	24770	5582,6	1083,7	2500,4	726,1	530,2	79,6	1052,6	1998,5	5308,7
Vermont	22112	4947	1091,2	2479,5	693,3	492,7	60,2	1050,6	1376,3	4648,8
<i>Midwest</i>	27955	6159,603	983,4507	3178,942	866,5686	842,7956	197,8955	1060,783	1997,21	6014,575
Delaware	27616	5680,9	746,9	2487,8	300,7	813,5	219,1	370,5	2446,2	4959,8
District of Columbia	34946	11323,7	4519	4442,5	1418	1145,5	264,4	1427,8	2362,2	10655
Maryland	27218	4870,4	665,1	2660,4	701,2	981,7	64	723,7	1544,9	4537,7
New Jersey	31053	5777,3	662,9	3215,5	881,3	569,2	137,2	1482,9	1898,9	5556,4
New York	28782	7433,5	1234,4	3848,4	1024,3	1105,8	307,6	1244,1	2350,7	7451,4
Pennsylvania	24668	4606,9	761,2	2243,1	665,8	532,1	118,1	642,4	1602,6	4410,6
<i>Great Lakes</i>	24469	4985,274	757,4451	2403,009	727,6288	562,4296	125,0572	869,1231	1824,82	4530,3474
Illinois	26597	4743,4	687	2478,3	861	430,7	104,8	954,8	1578,1	4460,9
Indiana	22438	4315,8	760,2	2119,8	589,7	590,3	138,9	739,7	1435,8	4058
Michigan	24811	5080,1	794,7	2554,7	646,9	512,9	229,2	1050,1	1730,7	4723,6
Ohio	23536	5242,2	802,5	2205,4	716,7	659,3	58,8	628,8	2234,3	4552,5
Wisconsin	23268	5562,2	748,9	2697,5	750,4	715,7	106,5	1004,4	2115,8	4815,1
<i>Plains</i>	23450	4804,596	773,2859	2252,918	810,2207	516,2573	79,83611	675,5257	1778,393	4415,6999
Iowa	22558	4776,9	770,6	2293,8	721,1	539,6	61,5	789,7	1712,5	4342,1
Kansas	23283	4747,3	703,2	2313,9	851,4	468,4	100	726,3	1730,2	4325,4
Minnesota	25579	5755	789,9	2729,7	859,4	754,4	120,7	798	2235,4	5446,4
Missouri	22863	3923,3	738,1	1866,1	791,3	451,4	47,8	436,7	1319,1	3469,3
Nebraska	23076	5361,7	726,1	2286,6	799,8	440,2	69,6	842,5	2349	5037,9
North Dakota	20695	4815,9	1120,5	2024,6	824	214,1	111,7	583,5	1670,8	4447,7
South Dakota	21527	4271,3	980,9	1810,9	852,2	0,2	50,5	722,3	1479,5	3981,3
<i>Southeast</i>	21880	4416,356	741,3889	1969,71	884,5957	320,7786	70,08634	520,4717	1705,257	4134,4216
Alabama	20056	4186,7	782,9	1602,6	831,1	339,4	51,7	195,9	1801,2	4084,8
Arkansas	18927	3727,9	815,2	1677,7	852,5	390,5	75,1	253,7	1235	3365,9
Florida	24104	4611,7	581,9	2184	1113,1	0	68	787,7	1845,8	4226,8
Georgia	22710	4544,6	696,8	2112,9	808,1	507	73,8	623,7	1734,9	4237,2
Kentucky	19686	4124	803,9	1930,5	747,5	562,4	70,3	318,7	1389,6	3782,9
Louisiana	19822	4600,8	1167	1720,3	921,4	226,6	50,8	298,4	1713,5	4380,9
Mississippi	17471	4059,4	978,4	1653,8	856,5	239	62,9	389,2	1427,2	3610,6
North Carolina	22010	4479,5	748,1	2107,6	805	605,8	104,2	462	1623,8	4125,5
South Carolina	19753	4551,5	803,2	1811,1	661,3	420,3	60,1	518	1937,2	4494,9
Tennessee	21763	4600,4	772,4	1759,1	1085,8	19,2	81,5	400,3	2068,9	4324
Virginia	24927	4164,9	497,5	2162,3	674,5	582	46,8	670,2	1505,1	3995,4
West Virginia	18442	4449,4	1094,1	1839,2	778,9	367,5	101,3	359,5	1516,1	4377,9
<i>Southwest</i>	21374	4344,587	691,0922	2026,786	989,3819	120,2993	21,42866	657,0342	1626,709	4071,2189
Arizona	20990	4629,1	690,5	2168,6	970,1	344,2	74,1	666,3	1770	4356,5
New Mexico	18774	4950,4	871,6	2095,6	1100,1	347,9	73,8	262,4	1983,2	4566,7
Oklahoma	19349	4067,9	648,9	1848,7	806,6	404,2	49,9	302,6	1570,3	3811,5
Texas	22045	4275,9	682,5	2020,6	1016	0	0	753,1	1572,8	4009,3
<i>Rocky Mountain</i>	22028	4973,724	795,1963	2108,512	734,1129	467,6069	53,48993	663,0567	2070,015	4595,0247
Colorado	25082	5020,1	670,2	2240,8	829,2	525,8	39,9	724,2	2109,1	4838,4
Idaho	19543	4362	674,2	1953	677,8	496,3	79,2	511	1734,8	3702
Montana	19055	4816,3	1043,3	1950,6	283,3	403,5	80,4	833,7	1822,4	4353,4
Utah	19160	4833,1	763,9	1918,2	795,5	484,4	65,6	491,1	2151	4429,9
Wyoming	21264	6936,9	1726,8	2514,6	703,6	0	0	940	2695,5	5962,4
<i>Far West</i>	24928	5770,93	945,4989	2452,689	951,6801	490,0338	119,4478	682,0393	2372,743	5619,2758
Alaska	24558	13009,2	1667,7	3249,3	356,4	0	292,8	1072,4	8092,2	11706
California	25144	5716,4	971,6	2409,6	879,2	559,5	147,7	658,5	2335,2	5544,2
Hawaii	25154	6033,6	1033,5	3202,7	1650,4	820,6	58,4	532,7	1797,4	6361,9
Nevada	25453	4950,6	550	2342,8	1478,3	0	0	511,3	2057,8	4989,6
Oregon	22666	5365,5	985,5	2259,8	215,9	834,9	85,2	814,1	2120,2	4888,4
Washington	24837	5677,6	777,1	2592,5	1571,7	0	0	779,2	2308	5807,1
<i>United States</i>	24231	5113,6	827,5	2402,4	858,9	494,7	108,8	757,1	1883,7	4855,7

¹⁾ Fiscal Year 1994/95.

Source: Facts & Figures On Government Finance, 32nd Edition.

government, while tax-rich states get the biggest grants from the US government. This appears to be an effect of the system of matching funds, under which states and localities have to match the federal grants they receive, usually dollar for dollar. No federal money, however, is available specifically for compensating regions which are economically weak and therefore unable to generate much revenue from taxes. Thus, there is very little in the way of vertical fiscal equalization between the federal and lower levels of government, and nothing at all in the way of horizontal equalization between the states. On the other hand, some revenue sharing takes place at the local level, although its extent is very limited.

Unlike the situation in Germany, for instance, in the USA no adjustment is made for the huge differences that exist between state and local governments with regard to their capacity to tax. Therefore, the differences with regard to the ability to spend are also huge. States where income per person is low also generate little revenue from taxes, while high-income states rake in much bigger amounts of revenue. The regional distribution of the capacity to tax also determines the regional distribution of expenditures. High-income states spend significantly more per person than states that are economically and fiscally weak. Just under a third of state and local expenditures are devoted to education. The level of expenditures per person is linked to a region's financial status: On balance, richer states spend more on education than poorer ones. However, in connection to this it is important to take into account the considerable disparity in input costs. Thus, teacher salaries vary in tandem with the differences in overall income levels. The connection between economic strength and public welfare is surprisingly weak. The higher-income states of the Northeast and the Mid-Atlantic region (for example, some states in New England, as well as New York) spend quite a lot. The higher cost of living in these states plays only a minor role in this regard, while two other factors are much more important. First, these states can afford higher levels of welfare. And second, average incomes are higher there, but so are their poverty rates, that is to say incomes are more unequal there than elsewhere (ACIR 1995b, p. 13).

2.4 Summary

There is no horizontal revenue sharing in the USA. Also, vertical transfer payments do not produce any noticeable horizontal equalization. Many federal grants to the lower level depend on co-financing by state and local governments (matching funds). This tends to increase the fiscal resources of richer states, while it does nothing for making the distribution of resources more equal. Government policy does not aim to bring about "uniform living conditions".

Individual states pursue their own tax policy. Usually, local governments can also impose their own taxes. Sub-

stantial differences do exist between the regions with regard to revenue as well as expenditure. Higher income levels produce more revenue, and make it therefore possible for states and localities to supply a wider range of public services. Obviously, the population accepts the huge variation in the provision of such services.

It remains an open question, whether the significant regional imbalance in the USA has led to higher allocative efficiency and enhanced overall economic growth. Likewise, it is not clear, whether the far-reaching tax-policy independence of the states has actually increased their competition with regard to taxation. Policies to boost economic growth may actually benefit from the reduction of differences in regional economic development. Fiscal equalization that channels more resources into economically weaker regions for infrastructure improvements can spur economic growth if the capital earmarked for such investments promises a higher marginal rate of return in poor regions than in rich ones. Still, it is also possible that the diversion of resources from rich regions to poor ones weakens economic growth in rich regions so severely as to reduce overall growth in the economy as a whole.

3. Germany

3.1 Division of responsibilities

In Germany the distribution of responsibilities among the federal, state (*Bundesländer*) and local level follows the principle of subsidiarity. This principle means that the federal level has the authority to carry out only those tasks that have to be regulated uniformly because of their general character. In keeping with the principle of subsidiarity, the states and local authorities are expected to take care of their own structural problems. Not only do state and local authorities have the best knowledge of local strengths and weaknesses. They also bear the political responsibility for regional and local developments. According to Germany's constitution ("Grundgesetz"), the federal government and the states are independent of each other as far as the management of their budgets is concerned. Federal and state governments draw up separate budgets and bear individual responsibility for the implementation of their own budget plans. But the various forms of revenue sharing in Germany provide economically and fiscally weaker regions with the financial means to carry out their policy tasks.

In addition, German politics is dominated by a consensual approach to policy, which holds that the federal government should address those problems of regional development that state and local governments cannot solve on their own. Federal intervention is also considered to be justified, because seriously negative developments at the regional level may ultimately threaten the stability of the overall economy. Hence, there are some important region-

al tasks that are planned and financed jointly by the federal government and the states.

In order to understand the distribution of responsibilities in Germany, it is necessary to know how the various levels of government share the power to make laws. The German constitution distinguishes between three different categories of legislative power: exclusive jurisdiction, concurrent jurisdiction, and the power to determine the overall framework of policy. Areas of exclusive legislative power include foreign affairs, defense policy, air-traffic regulation, monetary matters, and most aspects of tax policy. In the case of concurrent legislation, the states can fill in any gaps left by federal legislation, or deal with areas not specified in the Basic Law. Where the federal government has the power to establish the overall framework of policy, the states have a certain amount of legislative latitude with regard to the concrete details of policy. This category includes, for example, higher education as well as regional and landscape planning.

The distribution of law-making powers does not necessarily match the distribution of administrative responsibilities. The federal level executes laws only when proper federal agencies have been established for this purpose (for example, in foreign affairs and social security). In many cases, the states act as agents on behalf of the federal government, as with the collection of taxes or the operation and maintenance of federal highways (*Bundesstraßen*) and freeways (*Autobahnen*).

As mentioned above, some important supraregional tasks are planned and financed jointly by the federal government and the states. These so-called "joint tasks" cover improvements in the regional structure of the economy and the structure of agriculture, as well as the protection of the coasts and the construction of university buildings. The federal government may also participate in particularly important investment projects of state and local governments by making grants-in-aid available for specific purposes, such as

- the avoidance or the removal of threats to overall economic stability,
- the equalization of regional differences in economic development, and
- the promotion of economic growth.

All decisions on joint tasks require the support of the federal government and the majority of the states. In fact, decisions have never been made over a minority of dissenting states. As far as grants-in-aid are concerned, the federal government and all states must agree on the allocation of federal money to the states. The reason is that these funds should be allocated according to uniform standards and the states' own priorities. It should be obvious that the system of making decisions jointly imposes strict requirements for reaching a consensus. This approach is there-

fore prone to producing decisions that carefully skirt all areas of conflict. In terms of economic efficiency, the solutions will often seem less than optimal, as there can be no guarantee that the money is put to its most productive use.

Joint tasks, however, are not the only area where states can make themselves heard in the federal system. Although the federal parliament is the most important legislative body in Germany, the states as a whole exert substantial influence through the *Bundesrat*, because all bills affecting state interests must be approved by this body, which functions as the upper house in Germany's parliamentary system.

The states' independence with regard to budgetary matters entails their ability to borrow money. The Treaty of Maastricht does not allow governments to borrow directly from the central bank. Instead, they must raise the funds they need exclusively in the markets for capital. Borrowing by state governments, as well as by the federal government, must not exceed public investment expenditures. Debt issues by local governments are limited even more strongly, as they are tied to their cash flow. In addition, they are subject to overall state control.

The Basic Law gives cities and communities the right to manage their own affairs independently. Specific functions of local government are not listed in the Basic Law, but they may be enumerated in state constitutions. In particular, local authorities are in charge of constructing local roads, supplying electricity, water and gas, maintaining the sewers and engaging in town-planning. They are also responsible for the building and maintenance of schools, as well as for theaters, museums, hospitals, sport facilities and public swimming pools. Social assistance is another important task of local government.

Table 3 shows the distribution of public expenditures among federal, state and local governments. However, the division of responsibilities is not fully reflected in the distribution of expenditures, because a rather wide range of tasks is carried out at all levels of government. Moreover, as mentioned above, the higher levels of government tend to delegate the implementation of responsibilities to their lower-level counterparts.

3.2 Tax policy and distribution of tax revenues

Germany has a federally organized structure, but a rather centralized tax system. The states have virtually no power to set tax rates, which are normally fixed by the federal government. The only exemption is the rate of the local business tax, which can be set at the local level. However, the states participate in tax legislation through voting in the *Bundesrat*. This means that they can influence tax policy collectively, while none of them has any individual influence on tax rates. Apart from this, the states as a

Table 3

Germany: Revenues and Expenditures of Federal, State and Local Government
in % of Gross Domestic Product

	Total		Federal		States Authorities		Local Authorities	
	1992	1996	1992	1996	1992	1996	1992	1996
Direct taxes	11,9	10,4	5,2	4,7	5,3	4,6	1,3	1,1
Indirect taxes	12,7	12,8	7,8	6,9	3,3	4,3	1,6	1,5
Social security contributions	17,3	18,8	-	-	-	-	-	-
Fees, fines and penalties	0,8	0,7	0,2	0,0	0,3	0,4	0,2	0,3
Transfers from other government subsectors	-	-	0,2	0,3	2,4	1,6	2,4	2,4
Other	3,0	2,6	1,5	1,2	0,7	0,7	0,4	0,4
Total Receipts	45,6	45,3	14,9	13,1	12,0	11,6	5,9	5,7
Final consumption expenditures	19,3	19,1	2,7	2,2	5,9	6,0	3,7	3,4
Interest	3,2	3,7	2,1	2,4	0,8	1,0	0,3	0,3
Current transfers	21,6	23,0	9,9	9,1	4,7	4,9	1,3	1,6
Subsidies	1,9	2,0	1,1	1,1	0,5	0,6	0,1	0,2
Social security benefits	17,0	18,5	2,1	2,1	1,4	1,4	0,7	0,8
Transfers to other government subsectors	0,0	0,0	4,9	4,3	2,4	2,5	0,2	0,4
Other	2,7	2,6	1,8	1,6	0,4	0,4	0,2	0,3
Gross fixed capital formation	2,8	2,2	0,4	0,3	0,5	0,5	1,8	1,4
Capital transfers	-	-	0,7	0,7	0,9	0,8	0,0	0,0
Other	2,5	2,0	0,8	0,4	1,1	1,0	0,6	0,5
Total Expenditures	49,4	50,0	16,5	15,2	14,0	14,1	7,8	7,2
Source: OECD: National Accounts, 1984–1996.								

whole and the federal government negotiate how revenue from the so-called "joint taxes" is to be shared. That is to say, these revenues are distributed between the federal government and the states according to a specific formula, which is renegotiated periodically as the responsibilities of the different levels of government tend to change over time. To give an example: The integration of the East German states into the system of intergovernmental fiscal relations in 1995 required the states' share of the value-added tax (VAT) to be raised from 37% to 44%. In 1996 the states became responsible for managing the regional railway system. In this case, it was not their share of the VAT that was renegotiated, but the petrol tax, which had become the means for redistributing public money between the federal and the state level.

The joint taxes comprise the most important revenue sources of the German tax system. These are: the wage tax, the assessed income tax, the corporation tax, the non-assessed income tax on dividends and interest earnings, as well as the VAT. Part of the revenue from the income tax, as well as from the VAT, goes to the local level. By way of compensation, the local governments cede a portion of the local business tax to both the federal government and the states. Table 4 shows the distribution of joint taxes among federal, state and local authorities.

Other taxes apply only to one level of government. The federal government obtains revenue from all excise taxes

(for example, those on petrol and tobacco), while the states receive the revenue from the motor vehicle tax, inheritance tax, as well as some other taxes of minor importance. Local governments generate revenue through the local business tax, the real-property tax and local excise taxes.

An important aspect of the German arrangement of sharing taxes is the horizontal distribution of revenue from taxes. Revenues from income taxes are distributed among the states according to the regional yield of these taxes, while the states' share of the VAT is distributed mainly on a per-capita basis, although up to 25% of this share is reserved for explicit equalization measures. The per-capita element in sharing the VAT produces implicit horizontal equalization effects. The same is true for the local share of individual income taxes: The distribution among local governments depends only in part on the local yield. Tax revenues from income above a certain threshold, as defined by the tax schedule, are not used in this formula.

3.3 Horizontal equalization among the states

The financial situation of the states varies considerably, because their economic structure and development does so, too. Thus, economically and financially stronger states such as Baden-Württemberg, Bayern and Hessen have

Table 4

Germany: Distribution of Joint Taxes

in %

	Federal Government	States	Local Government
Wage tax, assessed income tax	42,5	42,5	15,0
Corporation tax, non assessed income tax on dividends and interest	50,0	50,0	-
Value-Added-Tax (VAT)	51,2	46,7	2,1
Local business tax ¹⁾	15,0	15,0	70,0
¹⁾ The local business tax is officially a joint tax. The shares of this tax are approximate.			

substantial financial resources at their disposal, whereas the economically and financially weaker states, especially in East Germany, do not. These disparities are mitigated by the regional distribution of joint taxes. Despite this fact, the revenues of the financially weaker states are not big enough for them to provide a similar range of public services as economically and financially stronger states.

According to the constitution, fiscal policy in Germany has to create and maintain uniform living conditions throughout the country. A nationwide regime of horizontal fiscal equalization has therefore been established. This horizontal equalization system is based on defining a measure of each state's regional capacity to tax, which is related to an equalization yardstick for this state.

A state's capacity to tax (determined by state and local tax revenue per person) is brought into line with the average capacity to tax of all the states considered together. The weaker states are guaranteed 95% of all the states' average capacity to tax. Payments given by the stronger states stem from their tax revenues including VAT. As mentioned above, 75% of the states' share of the VAT is distributed to the individual states on a per-capita basis. The remaining 25% is assigned to those states whose per-capita revenue from direct state taxes, as well as from income and corporation taxes, is below the average of all states. Payments are made by those states whose taxing capacity exceeds the average (100%). Transfers from the richer states are staggered progressively. In other words, transfer quotas rise with a state's ability to tax. If this ability amounts to between 100% and 110% of the average, a marginal rate of 66.6% is applied. If the capacity to tax exceeds 110% of the average, the marginal rate is 80%.

Table 5 shows the different steps in the system of horizontal equalization. The first column gives the "original" taxing power of each state. This is revenue from state taxes proper as well as the states' share of income and corporation taxes. The second column shows the distribution of the remaining 25% of VAT, which is assigned to the

poorer states. The third column features the equalization yardstick of each state, while the fourth column shows the regional capacities to tax. The fifth column describes the shortfall in the poorer states as well as the surplus in the richer states. The last column presents the states' financial position after horizontal equalization has taken place.

Despite this system of financial equalization, some states still remain "weak". They receive supplementary grants from the federal level, designed to "push" them up to at least 99.5% of all the states' average capacity to tax. Additionally, the federal government provides grants for special needs, such as payments that help the states meet their higher "political management costs", or bear the burden imposed on them by the process of unification.

As a final result of this redistribution among the states, the formerly weak states are mostly better off than the formerly strong states. Overall, more than DM 80 billion, or almost 21.5% of GDP (and almost 5% of total public expenditure), are redistributed between the federal and the state level, or between the richer and the poorer states:

- about DM 13 billion are redistributed by allocating the remaining 25%-share of VAT to the financially weaker states;
- almost DM 12 billion are redistributed through the horizontal system of equalization;
- more than DM 31 billion are given as supplementary federal grants and specific grants to the new states;
- about DM 25 billion are devoted to joint tasks.

Table 6 illustrates the regional distribution of financial payments from the federal government to the states. The high degree of financial equalization and federal support enables the new states to provide more public services than the old states. This result is politically desirable, because policy-makers originally aimed at higher levels of public expenditures in East Germany. Such higher expenditures were thought to be necessary for the new states to

Table 5

Germany: Horizontal Equalisation Process and Supplementary Grants from the Federal Level 1997

	Tax Revenues per capita before VAT Distribution in % of the Average	Distribution of Remaining 25% of VAT Mill. DM	Equalisation Yardsick Mill. DM	Regional Tax Capacity Mill. DM	Transfers (+ received, – payed) Mill. DM	Financial Position after Horizontal Equalisation in % of the Average	Supplementary Grants from the Federal Level Mill. DM
Nordrhein-Westfalen	113,7	-3549,418	73.990	78.660	-2980,781	102,3	–
Bayern	118,8	-2382,459	49.250	53.812	-3041,275	103,1	–
Baden-Württemberg	115,5	-2053,635	42.470	46.136	-2399,469	103,0	–
Niedersachsen	93,7	-1547,695	32.061	30.260	675,44	96,5	1.476
Hessen	129,1	-1191,81	24.686	28.825	-3122,244	104,1	–
Rheinland-Pfalz	96,0	-792,349	16.395	15.570	309,332	96,9	1.118
Schleswig-Holstein	104,8	-543,33	11.214	11.268	-1,933	100,5	368
Saarland	84,9	-49,652	4.431	4.003	205,976	95,0	2.024
Hamburg	165,1	-337,265	9.259	9.868	-334,38	103,0	–
Bremen	130,9	-133,614	3.635	3.227	263,506	96,0	2.110
Berlin	97,4	-681,064	18.781	13.401	4440,679	95,0	4.761
Sachsen	40,6	4086,567	18.538	15.698	1913,733	95,0	6.216
Sachsen-Anhalt	35,0	2770,244	11.076	9.349	1173,113	95,0	3.747
Thüringen	35,3	2518,931	10.125	8.499	1119,438	95,0	3.609
Brandenburg	43,5	2150,975	10.433	8.927	983,784	95,0	3.390
Mecklenburg-Vorpommern	38,0	1735,573	7.401	6.239	791,398	95,0	2.509
Total	100,0	± 13.262	343.745	343.745	± 11.876	100,0	31.329
Source: DIW.							

Table 6

Germany: Federal Grants-in-Aid for Joint Tasks 1996

DM per Capita

	Construction of Universities	Improvement of Regional Economic Structures	Improvement of the Agrarian Structure and Coastal Protection	Cooperation in Educational Planning and Research	Local Investment Urban Renewal, Housing Modernisation	Total	in %	memo item: Supplementary Grants
Baden Württemberg	28	-	20	2	103	153	48,0	-
Bayern	18	4	32	2	111	167	52,4	-
Hessen	16	1	18	2	104	141	44,2	-
Niedersachsen	21	10	40	3	99	173	54,2	168
Nordrhein-Westfalen	15	11	8	5	108	147	46,1	-
Rheinland-Pfalz	16	6	28	5	103	158	49,5	278
Saarland	29	40	13	1	117	200	62,7	1.872
Schleswig-Holstein	27	13	43	7	99	189	59,2	146
Bremen	28	7	5	4	107	151	47,3	3.118
Hamburg	30	100	11	3	113	257	80,6	-
Berlin	31	-	-	17	419	467	146,4	1.067
Brandenburg	31	240	117	11	640	1.039	325,7	1.029
Mecklenburg-Vorpommern	31	198	148	9	632	1.018	319,1	1.087
Sachsen	24	306	36	11	697	1.074	336,7	989
Sachsen-Anhalt	32	182	67	9	588	878	275,2	1.054
Thüringen	37	246	64	9	540	896	280,9	1.055
Total	22	52	30	5	210	319	100,0	

Sources: Federal Ministry of Finance; DIW.

Table 7

Germany: Expenditures and Revenues of States and Local Authorities 1997

DM per Capita

	Baden- Württem- berg	Bayern	Branden- burg	Hessen	Mecklen- burg-Vor- pommern	Nieder- sachsen	Nordrhein- Westfalen	Rheinland- Pfalz	Saar- land	Sachsen	Sachsen- Anhalt	Schleswig- Holstein	Thür- ingen	Berlin	Bremen	Hamburg	Total
Personal costs	3.068	2.951	3.108	3.195	3.047	2.996	3.043	2.979	3.083	2.752	3.211	3.007	2.947	4.080	3.841	3.692	3.088
Current material costs	1.027	1.003	1.213	1.107	1.254	1.605	1.069	885	1.051	1.211	1.212	997	1.375	2.895	2.121	1.907	1.172
Interest	393	277	530	594	475	652	636	608	981	378	525	710	504	946	1.664	1.121	559
Current transfers	1.649	1.673	1.975	2.199	1.805	1.357	1.997	1.474	1.403	1.367	1.662	1.388	1.594	2.435	2.457	2.732	1.625
Investment	777	1.010	1.330	666	1.361	588	552	745	449	1.182	1.236	714	1.149	350	666	716	787
Capital transfers	328	630	989	480	1.200	421	480	437	466	1.369	1.358	324	1.038	1.444	873	578	642
Expenditures	7.241	7.544	9.146	8.241	9.141	7.019	7.777	7.128	7.433	8.260	9.204	7.139	8.607	12.150	11.620	10.748	7.873
Taxes	5.006	5.017	3.786	5.511	3.712	4.449	5.048	4.370	4.270	3.770	3.674	4.663	3.641	4.540	5.556	6.994	4.754
Fees	456	665	474	578	457	483	765	269	424	439	357	605	262	427	275	320	546
Other	1.564	1.488	4.129	1.688	4.031	1.659	1.344	1.840	3.143	3.592	3.905	1.383	3.704	5.987	5.929	2.488	2.026
Revenues	7.026	7.170	8.389	7.777	8.200	6.591	7.156	6.479	7.837	7.802	7.936	6.650	7.607	10.953	11.760	9.803	7.327
Sources: Federal Statistical Office; DIW.																	

catch up with regard to public infrastructure, and to meet higher social needs as well as to face higher administrative costs. The reason is that the new state and local governments had to take over almost the whole administrative apparatus of the former GDR. It should be clear that it will take time, as well as huge amounts of money, to adjust the old structures of East Germany to the new situation. Table 7 shows that the scheme of horizontal equalization leads to a rather strong degree of equalization of state expenditures in both West and East Germany.

3.4 Fiscal equalization at the local level

Vertical financial equalization also takes place between state and local governments. The revenues of local governments from taxes and other sources are inadequate for them to carry out their tasks. They therefore depend on grants from the states. Some of these grants are tied to specific purposes, while others can freely be disposed of. The aim of this scheme to equalize fiscal resources at the local level is to reduce the disparities that exist in each state between localities with high and low revenues from taxes.

It is important to know that the financial needs of local governments are calculated according to population size: the bigger the city, the higher the fiscal worth of each resident. The underlying rationale is that the financial needs of metropolitan areas rise with the degree of agglomeration. In addition, the grants given to local governments also depend on a state's revenue from taxes. The local shares of state revenues from taxation vary from state to state. On average, the share is about 25% in West Germany and 30% in East Germany.

3.5 Summary

A main characteristic of the German arrangement of intergovernmental fiscal relations is its increasing tendency to distribute resources uniformly among the states. The system of making decisions jointly has made possible high transfers to the needy East German states, without reducing the absolute level of funds received by the West German states. The requirement that decisions must be based on a broad consensus has obviously led to a pattern of decisions that tend to avoid controversial issues between the federal level and all the states taken together, as well as between individual states. This implies a reluctance to allocate funds more selectively in terms of priorities or posteriorities.

All in all, German fiscal federalism has created a high degree of homogeneity with regard to the regional provision of public services. For reasons of regional development, this has been an appropriate approach, as the decision to set up the German monetary union implied at the same time that massive transfer payments would have to

be made by West Germany to East Germany. These transfers have enabled East Germany to catch up by extending and modernizing its public infrastructure and by promoting business activities. They have also been necessary in order to stabilize the social conditions in the East. On the other hand, the West German states have substantially benefited from unification, and they have not suffered any financial loss from the 1995 reform of the system of fiscal equalization.

If the economically stronger states, whose infrastructure endowment remains far superior, were given more resources at the expense of the poorer states, this would imply a loss of welfare at the macroeconomic level, as the marginal return on capital invested in infrastructure can be expected to be higher in East Germany than in the richer West German states. If the system of fiscal equalization were reformed so as to generate more competition between the states, the highly unequal distribution of initial endowments would not be the only problem. Rather, it seems very likely that some states would almost certainly lose such a race because of the lack of fiscal competitiveness at the regional level. What is even more serious is that the supply of public services would surely be cut back.

On the other hand, the system of financial equalization creates some questionable incentives. They result from the strict interpretation of the Basic Law's stipulation that uniform living conditions must be achieved throughout the country. This results in a very awkward fact: states that succeed in expanding their tax base by attracting more business have to transfer a considerable share of their revenue increase to financially weaker states. Economically stronger states, therefore, have little incentive to strengthen their tax base, or to prosecute tax evasion.

The principle of uniform living conditions, as well as the uniform system of taxation all over the country, is thought to prevent public spending from becoming more efficient. The ability to impose taxes at the state and local levels independently would strengthen fiscal responsibility with regard to both revenue and expenditure. Uniform living conditions may, in fact, encourage the waste of tax money, because the authorities have no incentive to provide public services in accordance with regional or local needs of the citizenry. Because they also have no incentive to use financial resources as economically as possible, fiscal discipline may be much weaker than it should be.

4. Canada

4.1 Division of responsibilities

Canada's fiscal federalism features elements of both the U.S. system and the German version of intergovernmental fiscal relations. On the one hand, there is a high

degree of decentralization insofar as eminently important powers have been assigned to the provinces, which roughly correspond to the states in the USA and the *Bundesländer*, or states, in Germany. Thus, the provinces have the power to pass laws concerning all regional and local matters. And, what is more, they are free to determine their own tax policy in a way that is completely unknown in Germany. On the other hand, distributive considerations play an important part in the Canadian model of fiscal federalism. As in Germany, but unlike the situation in the U.S.A., the national government and the provinces are explicitly called upon to make sure that people everywhere enjoy equal opportunities of economic advancement, and to provide for the adequate quantity and quality of public services necessary to reduce regional variations in economic development (Leslie 1993).

Compared to Germany, Canada's revenues from taxes and expenditures are similarly big as a share of GDP. In Canada, however, the government's role has become markedly smaller in recent years, because, among other things, its economy has performed better than Germany's (Table 8).

The composition of vertical fiscal flows is noticeably different, for Canadian provinces and localities are much more influential in quantitative terms than their German counterparts. Whereas state and local governments account for well over 40% of all public expenditure in Germany, the corresponding share for Canada is just under

two-thirds. The difference is particularly big with regard to government consumption. In Canada, government at the provincial and local level accounts for 15%, while the share of German states and localities is only 9%. The budgets of lower-level government in Canada are also burdened with much higher interest payments. Yet, transfer payments from the central government to the provinces do not betray the relatively strong position of the latter in Canada's federal system, as the extent of such transfers is smaller than in Germany. Instead, transfers from the provinces to the local level are more important, which shows that the independence of local jurisdictions is limited in Canada.

As far as legislation is concerned, the Canadian provinces enjoy much wider latitude than the German states. In this respect, the Canadian system is similar to that in the USA, whereas the German states ultimately participate in legislation only collectively through the *Bundesrat*. With regard to the budgetary responsibilities of the various levels of government, the differences between Canada and Germany appear to be rather small, however. Thus, Canada's central government is, of course, also in charge of foreign relations, national defense, research and, above all, social security (including unemployment benefits, old-age pensions, health insurance and the support of indigent families). As the goal of providing as uniform a level of public services as possible in all the provinces has become more important politically over time,

Table 8

Canada: Revenues and Expenditures of Federal, State and Local Government
in % of Gross Domestic Product

	Total		Federal		States Authorities		Local Authorities	
	1992	1996	1992	1996	1992	1996	1992	1996
Direct taxes	16,5	17,4	10,4	10,6	6,1	6,8	-	-
Indirect taxes	15,5	14,6	4,5	3,9	6,8	7,0	4,2	3,7
Social security contributions	5,8	5,5	3,0	2,7	1,1	1,0	-	-
Fees, fines and penalties	0,5	0,5	0,0	0,0	0,5	0,4	0,1	0,1
Transfers from other government subsectors	-	-	0,1	0,1	4,5	3,6	4,4	3,8
Other	5,5	5,4	1,9	1,9	2,4	2,6	0,3	0,3
Total Receipts	43,7	43,3	20,0	19,1	21,4	21,3	9,0	7,9
Final consumption expenditures	22,5	18,8	4,4	3,7	11,7	9,6	6,4	5,5
Interest	9,5	9,4	5,8	5,6	3,1	3,3	0,6	0,5
Current transfers	16,6	14,5	13,4	10,9	9,1	7,8	0,7	0,5
Subsidies	1,8	1,0	0,7	0,3	1,0	0,5	0,2	0,2
Social security benefits	13,6	12,4	7,2	6,1	3,5	3,3	0,5	0,4
Transfers to other government subsectors	-	-	4,6	3,6	4,5	3,8	0,0	0,0
Other	1,2	1,1	1,0	0,9	0,2	0,2	-	-
Gross fixed capital formation	2,7	2,4	0,5	0,4	1,1	0,9	1,2	1,1
Capital transfers	2,0	2,0	0,4	0,4	0,9	0,9	0,8	0,8
Total Expenditures	53,4	47,1	24,4	20,9	26,0	22,4	9,6	8,4

Source: OECD: National Accounts, 1984–1996.

the national government has given ever bigger grants to the provinces for this purpose, and particularly for health care and education. But most of all, this goal is pursued by means of direct federal grants to economically and fiscally weak provinces.

Due to the transfer payments from the central level, there is no clear-cut division of responsibilities between the national government and the provinces in the areas of health care and social services, as well as some parts of the education system. Grants from the national government in these areas do not necessarily mean that it also has the power to legislate on these matters. Thus, the central government originally intended to have the provinces participate in the implementation of its plans for a basic system of old-age pensions as well as mandatory health insurance. Yet, some of the provinces refused to participate, and the national government ultimately had to shoulder the responsibility for these programs alone.

Grants from the central government to the provinces are either general or earmarked for a specified purpose. Transfers intended to improve the financial resources of fiscally weak provinces, the so-called "equalization payments", take the form of general, that is nonspecific, grants. By contrast, the payments for health care and social services are specified grants, some of which are based on uniform amounts per person, with the provinces bearing half the cost (Krelove, Stotsky, and Verhorn 1997). Equalization payments go to the seven provinces that qualify as "have-nots": Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Manitoba, and Saskatchewan. The yardstick of eligibility is the extent to which the provinces' own fiscal resources fall short of the national average. As opposed to the German system of horizontal revenue sharing, the financial resources of fiscally strong provinces are not directly impaired, because the compensatory transfers are paid for by the national government. Of course, equalization occurs indirectly insofar as the national government takes the necessary funds out of "its" revenue in the rich provinces (Broadway and Hobson 1993). However, the degree of equalization is much smaller than in Germany.

4.2 Tax policy

At the federal level, the most important Canadian taxes are the individual and corporate income tax as well as the value-added tax (VAT). But the provinces also have the right to collect individual and corporate income taxes of their own. To this must be added the retail sales tax and the tax on the, in some cases, considerable wealth of natural resources. Local governments are entitled to revenue from real-property taxes.

Individual income taxes at the federal and provincial level are collected by the same agency, except in Quebec, which collects and administers its own income tax. The

other provinces receive a certain percentage of the federal income tax collected on their territory, after their share has been standardized, that is to say, adjusted for any tax exemptions. The provincial income tax consists of several elements: first, a basic rate of between 45 and 69% of the standardized federal tax in the various regions; next, a flat tax that is raised by three provinces; and third, a surcharge based on the amount owed under the respective regional income tax (Table 9). The basis of assessment is the same for both federal and provincial income taxes. Taxpayers therefore have to fill in only one income-tax return.

In the case of corporate income taxes, regional arrangements also vary substantially. Three provinces impose corporate income taxes of their own and administer them independently. The rules that determine the basis of assessment are similar to those enforced at the federal level. The national government grants provinces a ten-percent tax credit in order to give them some latitude with regard to taxing companies on their own. Currently, the general rate of the federal corporate income tax is 28% (after adjusting for the tax credit in favor of the provinces). To this must be added a three-percent surcharge on the amount of taxes owed. The effective rate is therefore 28.84%. Lower special rates are available for capital-investment companies (investment trusts), mortgage banks, pension funds, and similar legal entities, as well as for profits from production and processing activities in Canada. Corporate provincial rates range from 14 to 17%, except for Quebec where the rate is 8.9% (Krelove, Stotsky, and Verhorn 1997). At the regional level, too, special rates are offered for certain types of firms, such as small companies, as well as for certain industries, such as manufacturing, processing activities, mining, forestry and fisheries. If a corporation has facilities in several provinces, its overall corporate tax load is split among the provinces according to their share of the firm's sales and payroll, a procedure that is similar to the German approach.

At the beginning of the 1990s, the value-added tax was introduced at the federal level. The reform aimed at bringing provincial sales taxes into this system, but the provinces rejected these plans, because they were afraid that they might lose their independence with regard to tax policy (Krelove, Stotsky, and Verhorn 1997). The sales tax is imposed on retail sales, with provincial rates varying from 6% to 12%. Alberta is the only province that does not have a sales tax. The tax base is not defined uniformly everywhere. And in some of the provinces the tax is also imposed on the federal sales tax. This results in a confusing maze of rules and procedures (Table 10). The following rates are valid in the various provinces:

In 1996 the provinces of Newfoundland, Nova Scotia and New Brunswick decided to bring their sales taxes into line with the federal tax. With a rate of 15%, the harmo-

Table 9

Canada: Provincial Personal Income Tax Rates in Effect for 1997

Province	Basic Personal Income Tax (in % of basic federal tax)	Flat Tax (in per cent of net income)	Surtaxes (in % of provincial tax payable) ¹
Newfoundland	69,0	—	10.0 on amount payable over Can\$ 7,900
Prince Edward Island	59,5	—	10.0 on amount payable over Can\$ 5,200
Nova Scotia	58,5	—	20.0 on amount payable over Can\$ 10,000
New Brunswick	63,0	—	8.0 on amount payable over Can\$ 13,500
Quebec	n.a.	n.a.	n.a.
Ontario	48,0	—	20.0 on amount payable between Can\$ 4,555 and Can\$ 6,180
Manitoba	52,0	2,0	46.0 on amount payable over Can\$ 6,180
Saskatchewan	50,0	2,0	2.0 on net income over Can\$ 30,000
			10.0 on sum of basic provincial tax and flat tax less than Can\$ 4,000
			25.0 on sum of basic provincial tax and flat tax up to Can\$ 4,000
Alberta	45,5	2,0	8.0 on amount payable over Can\$ 3,500
British Columbia	51,5	0.5 ²	30.0 on amount between Can\$ 5,300 and Can\$ 8,745
Northwest Territories	45,0	—	54.5 on amount payable over Can\$ 8,745
Yukon	50,0	—	—
			5.0 on amount payable over Can\$ 6,000
n.a. = not applicable. ¹ Except for Manitoba and Saskatchewan. — ² As a percentage of taxable income. Source: Treff and Perry (1997).			

Table 10

Canada — Sales Tax Rates

	Provincial rates (without federal tax) (as %)	Overall rates (including federal rate of 7%) (as %)
Alberta	0	7
British Columbia	7	14
Saskatchewan	9	16
Manitoba	7	14
Ontario	8	15
Quebec ¹	8/4 ²	15.56/11.28 ²
New Brunswick	11	18.77
Nova Scotia ¹	11	18.77
Prince-Edward-Island ¹	10	17.7
Newfoundland	12	19.84
¹ Federal sales tax is included in basis of assessments for provincial tax. — ² Lower rate applies to services and selected activities.		

nized tax is implemented by a newly established and jointly operated agency.

Generally, taxes imposed on natural resources, such as oil, natural gas and minerals, play only a minor role. The provinces receive the proceeds from these taxes. However, their importance varies considerably by region, because the resources themselves are also spread out rather unevenly. Thus, such taxes account for a quarter of all revenue in Alberta, but only for a tenth in Saskatchewan (McMillan 1991). The federal government collects the

proceeds from excise taxes imposed on tobacco, alcohol and petrol. In the case of the petrol tax, the provinces are also entitled to some of the proceeds, but their tax rates vary.

4.3 Revenues and expenditures by provinces

As in the USA, revenues from taxes are distributed much more unevenly in Canada than in Germany. This is

Table 11

Canada: Provincial and Local Government Revenues and Expenditures, Fiscal Year 1996-97

	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
Canadian Dollars per Capita											
Provincial Government											
Personal income tax	1019,766	964,1551	953,5623	1068,241	1924,743	1475,343	1211,855	1160,749	1185,336	1392,679	1488,355
Corporate income tax	88,33304	127,286	115,352	157,4803	202,6259	369,2354	156,9625	212,3382	347,2595	382,1029	294,4256
Property and related taxes	15,21777	287,4909	16,64546	325,1969	176,6378	112,556	276,4819	217,4382	430,1722	656,7555	239,0721
Consumption taxes	1269,197	1320,41	1111,535	1255,249	955,333	1110,282	986,0575	1238,721	317,9036	1160,929	1010,04
Transfers from federal government	2618,156	2171,178	1965,967	2113,386	911,8977	543,7274	1491,319	972,8325	480,7933	511,4579	848,6012
Other	1316,25	1241,405	1102,099	1551,444	1640,43	1117,477	1950,807	2376,716	2916,479	2458,394	1679,294
Total gross general revenues	6326,92	6111,924	5265,161	6470,997	5811,668	4728,62	6073,483	6178,796	5677,944	6562,319	5559,788
Revenues without transfers from federal level	3708,763	3940,746	3299,194	4357,612	4899,77	4184,993	4582,164	5205,963	5197,15	6050,861	4711,187
Total gross general expenditures	6262,55	6045,355	5240,14	6300,656	6370,845	5208,813	6009,821	5866,811	5562,596	6450,28	5834,77
Local Government¹											
Total revenues	612,4098	1165,302	2000,321	695,394	2112,064	2913,272	2299,752	2155,641	2854,446	2044,7	2408,359
Transfers from other government	209,1784	894,2666	1166,791	267,2562	970,087	1122,864	1099,238	861,7621	1394,34	1126,093	1061,913
Total expenditures	667,4115	1142,219	2062,052	705,6883	2258,597	2896,603	2198,387	2175,22	2881,68	2197,407	2460,613
Gross domestic product ²	19304,47	21450,44	21438,97	22389,76	24982,28	30431,11	25537,9	27611,14	35500,18	27800,32	28253,06
in % of the Average											
Provincial Government											
Personal income tax	68,5163	64,77993	64,06822	71,77331	129,3202	99,12576	81,42249	77,98876	79,64072	93,57174	100
Corporate income tax	30,00182	43,23198	39,17865	53,4873	68,82074	125,4087	53,31142	72,11946	117,9447	129,7791	100
Property and related taxes	6,365348	120,2528	6,962528	136,0246	73,88473	47,08034	115,6479	90,95089	179,9341	274,7102	100
Consumption taxes	125,6581	130,7284	110,0486	124,2772	94,58365	109,9245	97,62556	122,6408	31,47434	114,9389	100
Transfers from federal government	308,5261	255,8537	231,6715	249,0435	107,4589	64,07336	175,7385	114,6395	56,65716	60,2707	100
Other	78,38114	73,92419	65,62872	92,38665	97,68572	66,54443	116,1683	141,5307	173,6729	146,3945	100
Total gross general revenues	113,7979	109,9309	94,70075	116,3893	104,5304	85,05037	109,2395	111,1337	102,1252	118,0318	100
Revenues without transfers from federal level	78,72249	83,64657	70,02894	92,49499	104,0029	88,82885	97,26136	110,5022	110,3151	128,436	100
Total gross general expenditure	107,3316	103,6091	89,80885	107,9846	109,1876	89,27194	103,0001	100,5491	95,33531	110,549	100
Local Government¹											
Total revenues	25,4285	48,3857	83,05741	28,87418	87,69721	120,965	95,49039	89,50663	118,5224	84,90014	100
Transfers from other government	19,69826	84,2128	109,8764	25,16743	91,35278	105,7397	103,5149	81,15186	131,3045	106,0438	100
Total expenditures	27,12379	46,4201	83,80238	28,67937	91,79001	117,7188	89,34309	88,40156	117,1123	89,30324	100
Gross domestic product ²	68,32702	75,92254	75,88195	79,24723	88,42328	107,7091	90,38986	97,72797	125,6507	98,39757	100

¹ Local Government based on Fiscal Year 1994. — ² Fiscal Year 1997.

Source: Authors' calculations based on data in Treff and Perry (1997), Statistics Canada.

true for all the various kinds of taxes (Table 11). In case of the individual income tax, which yields the most revenue, Quebec, at \$ 1,925, receives the highest amount per person, while Nova Scotia, at \$ 994, is at the bottom of the scale. In other words, Quebec's revenue is almost twice as high as Nova Scotia's. The discrepancy is even bigger in the case of provincial corporate income taxes as well as property taxes. In Newfoundland, the provincial corporate income tax yielded as little as \$ 88 per person, while the corresponding figure for British Columbia was \$ 382. But revenue from excise taxes is also spread out very unevenly between the provinces: just \$ 318 per person in Alberta, as opposed to \$ 1,320 on Prince Edward Island.

The level of a province's revenue per person, excluding grants from the central government, correlates relatively strongly with regional economic strength. The economically strong provinces of Alberta, British Columbia and Saskatchewan generate the highest revenues per person. Ontario, with its notably smaller level of revenue per person, is an exception in this regard. At the same time, the economically weak provinces of Newfoundland, Nova Scotia and Prince Edward Island also generate only low levels of revenue per person. Yet, grants from the national government more than compensate for the paucity of their revenue. On balance, the weak provinces do, after all, receive similarly high revenues per person as the economically strong provinces, which enables the former to maintain a corresponding level of expenditures.

At the local level, huge regional differences also exist with regard to revenues and expenditures. Here, too, a certain correlation can be found between revenue levels and economic strength, although the division of responsibilities and of fiscal resources varies from province to province. The fact that fiscally weak localities also receive only limited transfer payments from their respective provinces shows that grants often require local governments to provide matching funds of their own.

4.4 Summary

Canadian federalism contains both German and US elements. Similar to the states of their southern neighbour, Canada's provinces enjoy a rather high degree of independence with regard to tax policy. At the same time, the notion of distributive equity plays an important role, although there is no horizontal revenue sharing. Instead, the national government uses equalization payments to the same effect. But the degree of equalization is not as high as under the German system of revenue sharing. More recently, however, the central government has reduced its grants to the provinces, whose financial problems have become considerably worse as a result. The provinces have, in turn, tried to pass the increased financial pressure down to the local level.

5. Switzerland

5.1 Division of responsibilities

For a long time, Switzerland has been organised in a federal system. This system originally dates back to the Middle Ages and was constitutionally established in the 19th century. Twenty-six cantons form the confederation, six of which are half cantons. About 3,000 municipalities can be found within the cantons. With respect to the geographical situation, size (area and population) and economic potential there are remarkable discrepancies between the cantons. All in all, three groups of cantons can be distinguished: agglomeration cantons, mountain cantons, and others. Each group of cantons has typical problems of its own.

The cantons possess a high degree of sovereignty, limited partly by the constitution. As in Germany, the municipalities have much less legal sovereignty and are under control of the cantons. Nevertheless, with respect to public services, the municipalities are of great importance because they carry out state functions on the basis of their own responsibilities as well as on behalf of the cantons. However, this differs widely between the cantons.

The cantons are represented at the confederation level in the Council of States, which is an upper house of parliament. In regard to decision-making, each canton has one vote independent of its size and economic power. Based on the Constitution, there is a strict definition of responsibilities of each tier of government, and this is reflected, too, in the arrangement of public finances, leading to separate power of taxation between the confederation and the cantons. According to the Constitution, the confederation is exclusively responsible for defence, external relations, social insurance, protection and use of property, monetary and macroeconomic policy, national transportation systems and telecommunications and energy policy. In some fields such as issues of citizenship and foreigners' status, environmental policy and the support of culture and mass media, cooperation with the cantons is required. On the other hand, the cantons' main areas of exclusive responsibility include public welfare, education, health infrastructure, regional and local planning of land use, as well as usage of water and other resources. Most of the other government functions, i.e. health, culture, universities, vocational training, support of R&D, are associated with the cantons, if federal laws do not provide for the responsibility of the confederation. In this case, the functions are normally delegated to the regional and local governments, which implement the policies on the basis of the confederation's guidelines.

5.2 Tax policy and distribution of tax revenues

Each level of government collects its own taxes (Table 12). The main federal taxes are:

Table 12

Switzerland: Revenues and Expenditures of Federal, State and Local Government
in % of Gross Domestic Product

	Total		Federal		States Authorities		Local Authorities	
	1992	1996	1992	1996	1992	1996	1992	1996
Direct taxes	14,3	14,7	3,7	3,5	6,1	6,3	4,6	4,9
Indirect taxes	6,1	7,0	5,4	6,2	0,5	0,5	0,3	0,3
Social security contributions	7,5	8,8	0,0	0,0	0,1	0,0	0,1	0,0
Fees, fines and penalties	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Transfers from other government subject	-	-	0,0	0,0	2,9	3,4	1,3	1,3
Other	2,8	3,3	0,4	0,6	1,0	1,1	0,9	1,0
Total Receipts	30,8	33,8	9,5	10,3	10,5	11,4	7,0	7,4
Final consumption expenditures	12,8	12,5	2,9	2,8	5,8	5,7	3,8	3,6
Interest	1,9	2,1	0,8	0,8	0,5	0,6	0,6	0,6
Current transfers	15,9	17,3	6,1	6,5	4,2	4,5	2,2	2,3
Subsidies	2,1	2,2	1,3	1,3	0,5	0,7	0,3	0,2
Social security benefits	10,0	11,5	0,0	0,0	0,6	0,6	0,1	0,1
Transfers to other government subsectors	0,0	0,0	3,5	4,4	1,7	1,7	1,0	1,0
Other	3,9	3,6	1,3	0,8	1,5	1,5	0,8	0,9
Gross fixed capital formation	3,6	2,8	0,6	0,2	1,4	1,3	1,6	1,3
Capital transfers	-	-	-	-	-	-	-	-
Other	3,6	3,5	0,4	0,4	1,3	1,3	1,0	1,0
Total Expenditures	37,7	38,2	10,8	10,7	13,3	13,5	9,2	8,9
Source: OECD: National Accounts, 1984–1996.								

- personal and business income tax,
- tax on exemption from military service,
- stamp-duties,
- value-added tax,
- excises on tobacco, beer, spirits and mineral oils,
- motor car tax,
- transportation duties, and
- custom duties.

About 40% of the tax income of the confederation stems from taxes on income, while the great bulk thereof – 60% – comes from taxes on private consumption, which are exclusively federal taxes.

On the contrary, in the case of the 26 cantons as well as the 3,000 municipalities, nearly the whole tax revenue results from taxes on income and wealth. The main sources are:

- cantonal personal income and wealth tax,
- cantonal business income and wealth tax,
- taxes at death and on gifts,
- tax on capital gains (mainly on private immovables), and
- other taxes on real properties.

Taxes of minor importance for the cantons are the following:

- motor vehicles tax,
- dog licence fees,
- entertainment tax,
- stamp tax and others.

The municipalities have at their disposal taxes on entertainment and on stamps, and fees for dog licences as well. The consequence of a great deal of autonomy in taxing powers is a highly complex and intransparent tax system with remarkable differences between regions, not only with respect to the taxes levied, but also regarding the tax base and the rates of similar taxes. This has led to tax competition between cantons and municipalities, and to the problem of double taxation. Because it was felt that better tax coordination and harmonisation was needed, a federal law for tax harmonisation of direct taxes in cantons and municipalities was enacted on 1 february 1994. Since then, formal aspects such as tax liability, the tax base, taxing periods, tax penal law and legal proceedings have been harmonised. The cantons and municipalities are still responsible for the determination of tax rates and tax deductions.

5.3 Fiscal equalization among the cantons

In addition to their own tax resources, the cantons receive funds in the form of grants from the federal government. One of the main purposes of these grants is to

equalize regional revenues caused by discrepancies in the regional tax potentials. This enables poorer cantons to offer comparable public services without straining their taxpayers more than elsewhere. The equalization works in different ways. First, the cantons are reimbursed out of custom duties for fuels. These reimbursements are related to the cantonal expenditures for construction and maintenance of national roads. Second, the confederation shares with the cantons its revenues from federal taxes on income and profits, from the withholding tax on capital return as well as from the tax on exemption from compulsory military service. These shares are distributed according to different rules, only partly taking into account the objective of equalizing cantonal financial resources. Strictly taken, the equalization effect is reached not only through vertical transfers from the centre to the cantons, but through a kind of horizontal equalization worked out according to rules of distributing the regions' shares between the cantons. Third, the confederation transfers conditional grants-in-aid to the cantons. These grants are distributed among the regions very differently. There is a basic grant to each region, defined as a percentage of the federation's contribution to the cantonal expenditure for the purposes in question. The basic contributions differ according to the task. In the year 1996, the minimum ranged from 10% (e.g. historic preservation, homeland protection) to 60% (environmental protection). The corresponding maximums were 35% and 75%. For other purposes, the maximum federal contributions were even higher (e.g. 80% for main roads in mountain regions). Additionally, the confederation grants specific surpluses known as the "financial resources bonus" (Finanzkraftzuschlag) to the basic financial contribution. In 1996, these bonuses amounted on average to as much as 65% of the total grant for the special purpose. They differ remarkably according to the fiscal potential of the region in question. In 1996, the five wealthiest regions (Zug, Zurich, Genève, Basle centre and regions) received bonuses only as compensation for their regional transportation systems. However, in the financially weak regions (such as Jura, Valais, Appenzell i. Rh., Obwalden) bonuses amount to 50 to 60% of the total grants. Last but not least, the obligation of the cantons to contribute to the federal social institutions differs according to their individual fiscal potentials. As a consequence, the fiscal equalization scheme is quite complex.

However, the extent of equalization is limited. Measured on the basis of the fiscal potential of the cantons, regional discrepancies are great. While Zug, the wealthiest canton, showed a well above average index value of 228 in 1996, the canton Jura, one of the weakest, approached 30. Even with the help of the federal grants related to fiscal equalization, differences remain large. On the basis of the current system which stands to be reformed, the fiscal potential after redistribution amounts to just under 200 at the top and to nearly 60 at the bottom. The standard deviation

of the unweighted potential values per canton, which originally amounted to roughly 44, has been reduced by equalization measures by about one-quarter to 33. In comparison to the German example, the discrepancies in the original fiscal potential are much larger and the equalization does not go as far. The situation does not seem to have changed much over time. From 1993 to 1996, a period for which comparable indicators for the fiscal potential do exist, the spread and the individual ranking of the cantons did not change significantly; only the cantons Luzern and Uri bettered their positions notably.

5.4 Experiences and problems

At the end of the eighties, a discussion began regarding the intention, effectiveness and transparency of the fiscal equalization scheme. The federal fiscal administration produced a report, the conclusion of which was that the distribution of financial means does not sufficiently fulfil the aims of fiscal equalization. In 1992, the Council of Directors of the financial administration decided that the financial relations between the confederation and the cantons should be reorganised, and ordered that a scientific study be carried out, elaborating shortcomings and making recommendations for improvements. This study became available in 1994 and focused on three main shortcomings of the system:

- First, the system seemed to be too centralised, as the confederation is the main actor in making transfer payments to the cantons. There is a lack of a system of horizontal equalization between the cantons.
- Second, different tasks are linked together. On the one hand, the confederation provides incentives for cantonal activities, while on the other hand, it intends to support financially weak regions. Given this linkage, transfers can fail their objective and become inefficient.
- Third, the equalization is based on too many different kinds of transfers. Thus, its elaboration and execution are inefficient and intransparent.

A working group of the Swiss confederation and the cantons was formed and, based on this study, developed the framework of a reform of fiscal federalism until the end of 1995, which was broadly supported. In various project groups, the framework was filled with detailed regulations. The results were presented to the public at the end of 1998, giving advice for a new system of fiscal equalization.

5.5 Reform debate about fiscal equalization

The main intention of the new system is to revitalise fiscal federalism in Switzerland. To this end, different aspects have to be considered:

- Disconnecting the joint tasks and joint financing procedures of the confederation and the cantons,
- Fostering the cooperation between cantons on the basis of burden-sharing,
- Developing new forms of cooperation and financing between confederation and cantons in the remaining fields of joint tasks, and
- Creating a flexible equalization of financial resources between the richer and the poorer cantons.

5.5.1 Disconnecting task and financing procedures

Intertwining of responsibilities has caused numerous inefficiencies, parallel administrations on both levels of government, costly coordination procedures and unclear competencies and responsibilities. Moreover, in the case of conflicts between the confederation and the cantons, there is a danger that decisions are postponed because of blockages at different levels of government. Clear responsibilities, on the other hand create transparency, enable effective citizen control and support the acceptance of the public activities for which the citizen is paying. Therefore, it is claimed that the separation of task and financing procedures would enable the confederation to concentrate more on its core activities, such as distributing welfare within the community, strengthening the cohesion of the confederation and fostering international relations. Moreover, it is viewed as important that the federal government establish common standards and procedures in fields of common interest, such as environmental protection, national road and railway infrastructure, national defence systems and old-age and disability pensions.

5.5.2 Cooperation between cantons

Cantonal activities often have spill-over effects due to the fact that citizens make use of the services of neighbouring cantons. Therefore, costs and benefits should be distributed fairly between the cantons in question so as to avoid this type of "free rider" conduct. Moreover, cooperation between cantons could be used to gain economies of scale so that the public services offered are as efficient as possible. The precondition is that the cantons be prepared to cooperate and do not receive incentives to block one another by free-riding at the cost of the others. Domination of the poorer and weaker cantons by the powerful, rich ones should also be avoided. Therefore, the principles for cantonal cooperation should be set down in a basic agreement, while the concrete concept and procedures of the individual cooperation projects should be based on special treaties between the cantons involved. The federal level should support the cooperation of the cantons by declaring these basic agreements as obliga-

tory in general and by obliging single cantons to join existing treaties for inter-cantonal cooperation under certain conditions. The typical fields for inter-cantonal cooperation are seen mainly in transport systems in agglomeration cantons, in waste and sewage supply, in transregional cultural infrastructure and in high-quality health infrastructure. Further fields of cooperation are in the administration of universities and professional colleges ("Fachhochschulen") as well as in the execution of legal sentences, although in these cases, the confederation would share the responsibility.

5.5.3 New forms of vertical relations between the confederation and cantons

A series of tasks is seen to be realised in joint responsibilities of the federal and cantonal level. However, a strict division of competences would be useful, too. The strategic role should be played by the confederation, while the responsibility for organisation and supply should be borne by the cantons. In contrast to previously-existing procedures, the confederation would not continue granting fixed portions of costs but would pay global transfers or lump sums related to the result, not to the input for the measure. Instead of single projects, coherent programs taking place regularly throughout the year should be cofinanced. These programs should be the result of negotiations between the confederation and the individual cantons, containing all necessary details on objectives, means, federal grants, and evaluation procedures to provide for the efficiency of the results.

5.5.4 Equalization of financial resources

One main element of the new fiscal federalism should be the provision of adequate financial resources to each canton. This is seen as a precondition for ensuring the success of reforms which are based on more responsibility at the cantonal level. These reforms be achieved through horizontal equalization between richer and poorer cantons on the one hand, and by additional vertical transfers from the confederation to cantons which are still weak even after horizontal equalization on the other. It is proposed that the financial resources be equalized according to an index which strictly measures the cantons' revenue-collecting potential. The former index took into account aspects of revenue collecting as well as aspects of special burdens on the cantons (e.g. mountain regions). The indicator for financial resources is the potential out of personal income and wealth taxes, business income and wealth taxes and the motor vehicle tax. It is measured on a unique tax base which is oriented towards the federal tax and average tax tariffs. More than 90% of the cantonal and municipal tax income is apprehended by this method. The equalization of financial resources intends to guarantee each canton more responsibility in using these means.

Therefore, the transfers have to be granted without being bound to special uses. Distributional aspects are strictly separated from incentives to develop public programs for making cantons attractive to new citizens and firms. Thus far, competition between cantons has been forced, without the effect that weak regions are unable to stand up to competition with cantons of greater economic potential. It was proposed that financial resources up to 87% of the cantonal average be guaranteed, calculated on a per capita base.

Therefore, the proposed procedure for equalizing financial resources by horizontal and vertical transfers to economically and financially weaker regions seems to lead to a greater equalization effect in comparison to the actual rules (Table 13). However, two main differences exist between the current formula and the proposed new regulations. The index of fiscal strength, which takes into account not only the revenue capacity but also the individual bur-

den of the cantons, shows many more discrepancies than the new resources index, which focuses only on the financial resources, i.e. the tax capacities. While with respect to fiscal strength, the weakest regions rank at roughly 30% of the cantonal average (Uri, Jura, Valais), the index of financial resources shows remarkably higher values for the weaker regions, e.g. for Jura 61% and for Valais 65%, for Uri even 79% of the cantonal average. As a consequence, in order to guarantee a minimum of financial resources up to 87% of the cantonal average, in many cases less transfers are needed than would be called for based on the current scheme. Therefore, the question remains open whether under the new regulations the cantons would be better off than before from a budgetary point of view. In any case, they will receive much more flexibility and responsibility to act independently from the influence of the confederation. It is expected that the savings of transaction costs which result from the current procedures of coordination

Table 13

Fiscal equalisation in Switzerland

Canton	Current procedure			Proposed procedure			
	Original fiscal strength Index 1992/93	Transfers per inhabitant Swiss franc 1993	Fiscal strength redistributed Index 1992/93	Original financial resources Index 1992	Horizontal equalisation per inhabitant Swiss franc 1992	Vertical equalisation per inhabitant Swiss franc	Financial resources redistributed Index
Zug	210	-787	190	222	-1.134	0	197
Basel-Stadt	172	-440	160	153	-496	0	143
Genève	157	-346	147	151	-470	0	140
Zürich	155	-288	146	131	-288	0	125
Nidwalden	96	52	96	115	-143	0	112
Glarus	79	165	81	113	-124	0	111
Basel-Land	103	-67	100	110	-91	0	108
Vaud	93	72	93	103	-25	0	102
Ticino	73	391	80	93	64	0	95
Aargau	92	46	91	90	97	0	92
Schwyz	78	208	81	88	112	0	90
Graubünden	67	641	80	86	131	0	89
Schaffhausen	91	89	91	85	139	0	88
Neuchâtel	53	889	71	83	162	41	87
Solothurn	83	166	85	82	166	56	87
Appenzell A. Rh.	69	361	76	81	175	93	87
St. Gallen	85	170	87	81	179	108	87
Uri	30	1.606	64	79	195	171	87
Fribourg	64	542	74	78	201	197	87
Bern	71	393	78	78	208	222	87
Thurgau	90	100	91	76	220	270	87
Luzern	63	407	71	74	238	344	87
Obwalden	43	1.053	65	73	255	411	87
Appenzell I. Rh.	41	732	56	69	292	559	87
Valais	34	1.082	56	65	330	707	87
Jura	33	1.470	64	61	359	821	87
Schweiz	100	-	100	100	-	-	100

Sources: Eidgenössische Finanzverwaltung, Finanzausgleichsbilanz 1993, EFV/FS 30/06/95 (Fiscal administration of the Swiss Confederation, Balance of fiscal equalisation, internal paper); Der Neue Finanzausgleich zwischen Bund und Kantonen, Grundzüge, Bern und Luzern 1996 (The new fiscal equalisation between confederation and cantons, Guidelines); DIW.

and adjustment between the different levels of government will compensate for the eventual loss of transfers under the new formula of equalization.

6. Conclusion

A number of differences notwithstanding, the systems of fiscal federalism adopted by the countries reviewed in this paper share certain characteristics that hold some useful lessons for developing fiscal relations between center and regions:

Responsibilities should be divided among the various levels in such a way as to prevent their powers from overlapping. The level of government in charge of particular tasks must also provide adequate financial resources. To the extent that authorities at the lower level carry out certain tasks on behalf of higher levels of the government, they must be given the necessary means to do the job.

The sharing of responsibilities and the corresponding sharing of financial arrangements should be reduced to a minimum. In practice, web-like relationships have, of course, evolved over time. As a result, the various levels of government try to influence each other's decisions and to coordinate their activities, which often leads to cumbersome administrative procedures and mutual policy blockades. Here, it is necessary to disentangle political and administrative relationships in order to re-establish clear lines of authority and financial responsibility.

The power to tax and to design tax policy should allow the various levels of government to receive their fair share of the benefits of economic development. At the same time, they must be able to create incentives for companies and people to locate within their jurisdiction. On the one hand, this requires that government at all levels can tap comparably productive sources of tax revenue. On the other hand, individual units of government should have the power to determine for themselves how large a burden they want to impose on taxpayers in their jurisdiction. But in order to improve transparency, and thus to facilitate

fair competition, a federal law that pays adequate attention to regional concerns should make the basis of assessment as uniform as possible throughout the federation. Regional differentiation could then be achieved by varying tax rates accordingly.

It should, by all means, be understood that the notion of giving all levels of government access to uniformly productive sources of revenue is also an argument in favor of joint taxes. They are the best way to make sure that individual levels are not solely dependent on revenue flows that are very uneven over the course of the business cycle. Neither should they depend on sources whose yield does not keep up with economic development, or on sources that dry up, because that particular tax is used to pursue certain goals of economic policy. Regional variations of the tax burden could still be achieved by varying individual jurisdictions' percentage shares of joint taxes accordingly. Another advantage of joint taxes that should not be dismissed too lightly is the fact that they help avoid intergovernmental conflicts of interest over the development and the exploitation of revenue sources.

Efficiency considerations call for the uniform administration of taxes throughout the federation. This requires mutual trust in the just distribution of revenue, and, at the same time, adequate checks and control mechanisms. It is particularly important that the tax authorities are visible and active at the local level. This is why government at the regional level should be in charge of collecting taxes. Central government should, in turn, oversee the regional agencies in order to ensure adequate control.

In all countries, the regional capacity to tax varies greatly. Most federal systems therefore use some form of revenue sharing in order to facilitate fair competition between locations. Another reason is to help government agencies provide business, as well as the general population, with adequate public services. Such schemes usually contain both horizontal and vertical elements. The resulting transfer payments should be general rather than specific. Thus, the recipients will still be able to carry out their tasks independently.

References

- ACIR* (1993): Advisory Commission on Intergovernmental Relations: RTS 1991 — State Revenue Capacity and Effort, Washington.
- ACIR* (1995a): Advisory Commission on Intergovernmental Relations: Significant Features of Fiscal Federalism, Volume 1, Budget Processes and Tax Systems, Washington.
- ACIR* (1995b): Advisory Commission on Intergovernmental Relations: Significant Features of Fiscal Federalism, Volume 2, Revenues and Expenditures, Washington.
- Boss, A (1993): Wettbewerb der Regionen und Finanzverfassung. In: Beihefte zur Konjunkturpolitik, Heft 41, p. 79 ff.
- Committee on Ways and Means, U.S. House of Representatives* (1998): Green Book, Washington.
- Eidgenössische Finanzverwaltung* (1998): Finanzausgleichsbilanzen 1970 bis 1996; interne Unterlagen (Fiscal administration of the Swiss Confederation, Balances of fiscal equalization, internal informations).
- Frey, R.L. (1977): Zwischen Föderalismus und Zentralismus, Bern.
- Junkernheinrich, M. (1991): Gemeindefinanzen. Theoretische und methodische Grundlagen ihrer Analyse, Berlin.
- Kirchgässner, Gebhard; Werner W. Pommerehne (1996): Tax harmonization and tax competition in the European Union: Lessons from Switzerland. In: Journal of Public Economics, 60 (1996), pp. 351-371.
- Krelove, R., J.G. Stotsky, and Ch.L. Verhorn (1997): Canada. In: Ter-Minassian, T. (ed.), Fiscal Federalism in Theory and Practice, Washington.
- Leslie, P.M. (1993): The Fiscal Crisis in Canadian Federalism. In: A Partnership in Trouble: Renegotiating Fiscal Federalism (Toronto: C.D. Howe Institute).
- McMillan, M. (1991): Provincial Public Finances: Plaudits, Problems, and Prospects, 2 vols. (Toronto: Canadian Tax Foundation).
- Oates, W.E. (1972): Fiscal Federalism, New York.
- Olson jr., M. (1969): The Principle of "Fiscal Equivalence": The Division of Responsibilities among Different Levels of Government. In: American Economic Review, Vol. 59, p. 479 ff.
- Projektorganisation Bund/Kantone* (1996): Der neue Finanzausgleich zwischen Bund und Kantonen, Grundzüge. Bericht der vom Eidg. Finanzdepartement und der Konferenz der kantonalen Finanzdirektion gemeinsam getragenen Projektorganisation, Bern und Luzern.
- Rotzetter, Elisabeth (1998): Steuerpolitische Problemkreise, Herausforderungen für die Schweiz im internationalen Umfeld. In: La vie économique — Revue de politique économique 5 (1998), pp. 46-51.
- Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung*: Jahresgutachten 1989/90, 1997/98.
- Soitwedel, R. (1987): Wettbewerb zwischen Regionen statt zentral koordinierter Regionalpolitik. In: Die Weltwirtschaft, Heft 1, p. 129 ff.
- Spahn, Paul Bernd (1997): Switzerland. In: Ter-Minassian, Teresa (ed., 1997): Fiscal Federalism in Theory and Practice, pp. 324-341.
- Stadler, Markus (1998): Die Position der kleineren Kantone nicht untergraben, Neuer Finanzausgleich Bundes-Kantone. In: La vie économique — Revue de politique économique 5 (1998), pp. 30-32.
- Stotsky, J.G., E.M. Sunley (1997): United States. In: Ter-Minassian, T. (ed.), Fiscal Federalism in Theory and Practice, Washington, p. 359 ff.
- Suntum, U. van (1984): Regionalpolitik in der Marktwirtschaft — Fremdkörper oder notwendige Ergänzung? In: Jahrbuch für Regionalwissenschaft, Bd. 5, p. 110 ff.
- Tax Foundation* (1998): Facts & Figures on Government Finance, Washington.
- Ter-Minassian, Teresa (ed., 1997): Fiscal Federalism in Theory and Practice, International Monetary Fund, Washington.
- Treff, K., D.B. Perry (1997): Finances of the Nation 1997 (Toronto: Canadian Tax Foundation).
- Vesper, D. (1994): Zur Struktur des öffentlichen Sektors in den Vereinigten Staaten und Deutschland — einige quantitative Aspekte. In: Vierteljahrshefte des DIW, Nr. 3, p. 189 ff.
- Wellisch, D. (1995): Dezentrale Finanzpolitik bei hoher Mobilität, Tübingen.
- Wettstein, Gérard (1998): Der neue Finanzausgleich zwischen Bund und Kantonen. In: La vie économique — Revue de politique économique 5 (1998), pp. 58-62.
- Wissenschaftlicher Beirat beim Bundesministerium der Finanzen* (1992): Gutachten zum Länderfinanzausgleich in der Bundesrepublik Deutschland. In: Schriftenreihe des Bundesministeriums der Finanzen, Heft 47.

Zusammenfassung

Fiskalischer Föderalismus — ein internationaler Vergleich

In föderalen Systemen ist es erforderlich, die Vorteile und Nachteile von Zentralisierung und Dezentralisierung auszubalancieren. Grundsätzlich gibt es zwei konkurrierende Modelle, die finanziellen Beziehungen der Gebietskörperschaften zu ordnen: die Idee des kompetitiven Föderalismus und die des kooperativen Föderalismus. Das Wettbewerbsmodell setzt darauf, daß Regionen weitgehend autonom sind und durch die Gestaltung ihrer Einnahmen und Ausgaben miteinander konkurrieren. Das kooperative Modell dagegen setzt stärker auf die Vergleichbarkeit der Lebensverhältnisse; Unterschiede werden durch Transfers im Wege eines Finanzausgleichssystems verringert. Dieser Ansatz findet sich vor allem in Deutschland, der Wettbewerbsgedanke ist in den USA stärker ausgeprägt. Kanada und die Schweiz sind Beispiele für eine Mischung von beiden Aspekten.

Aus den Erfahrungen mit den einzelnen nationalen Systemen lassen sich Lehren für die Gestaltung der fiskalischen Beziehungen zwischen Zentralstaat und nachgelagerten Gebietskörperschaften erkennen. Vor allem sollten sich die Verantwortlichkeiten der einzelnen Ebenen nicht überschneiden. Aufgaben und staatliche Einnahmen sollten miteinander korrespondieren. Gemeinsame Verantwortung und Mischfinanzierungen wären auf ein notwendiges Minimum zu beschränken. Ein fairer Wettbewerb setzt Gestaltungsmöglichkeiten auch bei der Besteuerung voraus. Das Gebot der Transparenz erfordert aber, eine möglichst einheitliche rechtliche Basis der Besteuerung zu gewährleisten. Um die staatlichen Ebenen gleichmäßig an der wirtschaftlichen Dynamik teilhaben zu lassen, spricht viel für Gemeinschaftssteuern, wenn über Hebesätze individuelle Gestaltungsmöglichkeiten gewährleistet sind. Soweit ein finanzieller Ausgleich aus Gründen der Chancengleichheit in den Ausgangsbedingungen sinnvoll erscheint, sollten die Transfers weitgehend nicht zweckgebunden geleistet werden.