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QUANTITATIVE ASPECTS OF FEDERALISM:
A STUDY OF SIX COUNTRIES

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I. INTRODUCTORY NOTES

The aim of this study is, firstly, to present a series of statistical informations on different countries and their federative structure in a summarizing and compatible way. The countries analyzed for this purpose are Canada, France, Western Germany, Switzerland, the United Kingdom, and the United States. As most of the statistical data - as far as they were available¹⁾ - can be easily interpreted, their presentation forms one of the latest parts of this paper (Part IV).

Secondly, using statistical data and empirical studies that have already been carried out (especially on the 6 countries mentioned) this study seeks to demonstrate how relevant the economic approach is to fiscal federalism. This can be done in different ways: either by starting with given (hierarchically ordered) units and investigating, for example, whether a major redistributational policy is indeed not to be expected at the subcentral governmental level as the economic approach would suggest. Or the assumption of a given federative structure can be dismissed and we can concentrate our research on the question of which economic, political and social factors determine the demand for centralization.

Since we are considering both approaches in this paper the following sections are arranged accordingly.

Part II deals under the heading of 'economic aspect of fiscal federalism' with those branches of fiscal policy which since Musgrave (1959, chapt.1) are labeled 'allocation, distribution and stabilization branch'. There we don't plan to analyze theoretically one or the other of these branches more closely; this, as far as it concerns their federative aspects, has been done by

¹⁾Very often this was not the case and the collecting and investigating of data was a highly frustrating activity.

various authors¹⁾. Rather, the arguments of the economic position are taken as known in their essentials and we ask how much empirical evidence can be found in the countries mentioned for hypotheses deduced from this position.

In part III the approach is reversed. We then investigate which political, social and economic variables determine the demand for a decentralized fiscal structure. Using quantitative methods (cross section analysis) we will attempt to give a tentative answer to this question.

Part IV contains - as already mentioned - a series of statistical data.

Part V includes a bibliography containing selected literature on the various countries as well as the statistical sources used here.

¹⁾See e.g. Oates (1968, 1972) and Musgrave (1969).

II. ECONOMIC ASPECTS OF FISCAL FEDERALISM.

A. Allocational Aspects of Fiscal Federalism.

1. Public Provision of Goods and Services.

A first function ¹⁾ of the public sector lies in the establishment of an efficient pattern of resource use, i. e. - within the framework of a federative structure - in the provision of defined areas with certain public and private goods and services ²⁾.

It is well known that the advantage of decentralization of decisions (i. e. the federal fiscal structure) lies in the fact that different demands can be taken into account in a better way than in centralized decisions, that means, a meritization in the supply of publicly provided goods is more likely to be avoided ³⁾. But it is also known, that the scale on which a good is provided on a certain governmental level tends to depend on the scale on which spillovers can be internalized. If this is, e. g., not or only partially possible on the local level, it must be referred to the decision-making process on the next higher government level, this being the possibility of taking the spatial and external effects (of a positive or negative nature) into account.

But a lacking 'fiscal equivalence' (Olson, 1969) does not necessarily mean that the regulation of details and provision of the respective service must take place on the next higher level, too. The level of decision making can vary considerably from the level, on which the service is provided; either because the respective circumstances can be better dealt with on the subcentral level or that

1) The terms first, second function etc. neither state the urgency of the task, nor do they state that the different functions are independent.

2) This paper presupposes institutionally given government units, i. e. the question concerning the optimal size of a unit is excluded, but see e. g. Tullock (1969) and Bish and Nourse (1975, chapt. 5).

3) See e. g. Musgrave (1969a) and Neumann (1971).

diseconomies of scale occur in the provision. Both, the size of spatial external effects and the existence of economies of scale can point in the same direction, so that the problem, on which level the provision of a good should be decided upon, does not arise. However, this is far more difficult in the case of contrasting tendencies, as in that case the advantages and disadvantages of centralization (decentralization) must be balanced against each other ¹⁾. From empirical data, however, it is difficult to conclude to which extent the existence of spillover and economies or diseconomies of scale were decisive for the division of functions, and the actual establishment in the provision of the various services, especially as further considerations arise, caused, e. g., by the existence of merit goods (guaranteed minimal provision with public services considered important). However, certain common traits possibly can be expected in all countries considered here.

Thus national defence, the maintenance of international relations, and basic research, e. g., will be the responsibility of the supreme level of a nation because of their nature as a public good. But similar arguments can also be applied, to some extent, to such 'goods' as social welfare (redistributional goal) and counter-cyclical policy (stabilization goal), as shall be pointed out more clearly in the following paragraphs.

On the other hand the economic approach leads us to expect that services, whose range of beneficiaries is restricted locally or regionally (e. g. law enforcement, public administration, refuse collection) tend to be decided upon on a local or regional level.

Furthermore, it can be expected that decisions on goods and services are not made mainly at a single governmental level: the responsibility of higher education, science and research (especially of the universities and colleges) are becoming more and more the joint responsibility of state and federal government, this because of their considerable cost and benefit spillovers. We may expect similar

1) The problem, considered more closely, becomes even more complicated because spillovers and economies of scale are not to be regarded as independent factors (see e. g. Boes, 1973, pp. 64 - 65).

tendencies at the state-local level with such services as police protection, primary and secondary schooling, refuse disposal and water supply; furthermore, it could be the case that these services - as, e. g., water supply - are regarded as the common responsibility of several local government units. At last, because of the manifold goals involved (also of a merit good nature), questions concerning economic development projects, the improvement of the traffic network and the like are decided upon on all levels.

In the following we will consider the public expenditure of the various government units by function as a rough approximation of the actual functions of a certain level in order to investigate to what extent this reflects the division of functions described above. As a detailed picture we take the Swiss public expenditures by function and level of government of the years 1969 and 1973 (Table 1) ¹⁾.

As the table shows, the economic approach for describing the present federative structure in Switzerland and its development seems successful: the exclusively federal expenditures can be readily explained by the existence of spillovers (national defense) and - as in the case of social insurance services - by the expanded risk-spreading.

1) In order to be able to take into account the relatively strong influence of the federal government in decision-making (not necessarily in the actual provision), we shall use data from public finance statistics and not from national accounts. An important difference between the two sources (for a more detailed discussion see part IV) is that in the national accounts both unconditional as well as conditional grants are added to the respective receiver unit. In public finance statistics, however, at least the quantitatively more important conditional transfers are entered on the side of the spending unit (i. e. federal or state government). The latter treatment seems more useful for our purposes.

In order to approximately record the interregional (intercommunal) duties - public finance statistics do not actually attempt this - we make the following (arbitrary) divisions: a function will be regarded as interregional if that portion of the total expenses carried by the federal (state) government does not diverge strongly from that of the state (local) governments, whereby we limit the span to a maximum of 30 percent points.

Table 1: The Federal Economic Structure of Switzerland (Public Expenditure Distribution by Function and Level of Government), 1969 and 1973^{*})

| Function \ Level of Government | Year | Percentage Distribution | | | Total (in 10 ⁶ SFr) |
|--|------|-------------------------|-------|--------------------|-----------------------------------|
| | | Federal | State | Local | |
| <u>Federal Government Tasks</u> | | | | | |
| - International Relations | 1973 | 100.0 | -- | --- | 474 |
| | 1969 | 100.0 | -- | -- | 302 |
| - Broadcasting System | 1973 | 100.0 | -- | -- | 4863 |
| | 1969 | 100.0 | -- | -- | 2548 |
| - Military Defense | 1973 | 97.0 | 2.1 | 0.9 | 2362 |
| | 1969 | 97.0 | 2.1 | 0.9 | 1792 |
| - Social Insurance | 1973 | 94.1 | 5.6 | 0.3 | 10087 |
| | 1969 | 94.0 | 5.5 | 0.5 | 8092 |
| - Agriculture (Especially stabilisation of farm prices and income) | 1973 | 83.9 | 13.3 | 2.8 | 1299 |
| | 1969 | 86.2 | 10.7 | 3.1 | 974 |
| - Social Insurance Contributions | 1973 | 69.7 | 23.2 | 7.1 | 3220 |
| | 1969 | 70.4 | 22.4 | 7.2 | 1646 |
| - Air Transportation | 1973 | 67.8 | 31.3 | 1.9 | 231 |
| | 1969 | 43.4 | 54.7 | 1.9 | 97 |
| <u>Federal & State Government Tasks</u> | | | | | |
| - Universities & Basic Research | 1973 | 63.2 | 36.4 | 0.4 | 1525 |
| | 1969 | 65.2 | 34.2 | 0.6 | 695 |
| - Correction | 1973 | 52.7 | 34.4 | 12.9 | 115 |
| | 1969 | 34.1 | 47.1 | 18.8 | 66 |
| <u>State Government Tasks</u> | | | | | |
| - Real Value Insurance | 1973 | -- | 98.6 | 1.4 | 388 |
| | 1969 | -- | 98.5 | 1.5 | 268 |
| - High Schools | 1973 | 4.0 | 90.4 | 5.6 | 796 |
| | 1969 | 3.5 | 93.6 | 2.9 | 368 |
| - Health & Hospitals | 1973 | 1.2 | 82.2 | 16.6 | 2852 |
| | 1969 | 1.5 | 77.8 | 20.7 | 1512 |
| - Public Industrial Utilities | 1973 | -- | 80.7 | 19.3 | 1244 |
| | 1969 | -- | 80.0 | 20.0 ^{e)} | 235 |
| - Transportation (Excluding postal services and railroad) | 1973 | -- | 75.0 | 25.0 | 322 |
| | 1969 | -- | 74.6 | 25.4 ^{e)} | 191 |

Table 1: continued

| Function \ Level of Government | Year | Percentage Distribution | | | Total (in 10 ⁶ SFr) |
|---|------|-------------------------|-------|--------------------|-----------------------------------|
| | | Federal | State | Local | |
| - Contributions to Employee Retirement (Insurance trusts) | 1973 | 25.8 | 60.4 | 13.8 | 1783 |
| | 1969 | 36.7 | 47.4 | 15.9 ^{e)} | 558 |
| - Law Enforcement | 1973 | 15.7 | 64.2 | 20.1 | 585 |
| | 1969 | 11.3 | 71.2 | 17.5 | 379 |
| <u>State & Local Government Tasks</u> | | | | | |
| - Police and Fire Protection | 1973 | 2.8 | 60.7 | 36.5 | 925 |
| | 1969 | 2.4 | 57.1 | 40.5 | 543 |
| - Social Welfare Payments | 1973 | 2.4 | 56.5 | 41.1 | 886 |
| | 1969 | 0.3 | 50.8 | 48.9 | 520 |
| - Forestry, Hunting, Fishing | 1973 | 14.2 | 49.9 | 35.9 | 205 |
| | 1969 | 19.0 | 71.2 | 5.8 | 126 |
| - Education (Primary Schools) | 1973 | 1.0 | 41.4 | 57.6 | 3271 |
| | 1969 | 1.2 | 43.5 | 55.2 | 1725 |
| <u>Local Government Tasks</u> | | | | | |
| - Water Supply Service | 1973 | -- | 10.5 | 89.5 | 251 |
| | 1969 | -- | 28.8 | 71.8 | 33 |
| - Cemetery, Public Lavatory | 1973 | 0.3 | 13.7 | 86.0 | 177 |
| | 1969 | 0.2 | 14.8 | 85.0 | 145 |
| - Recreational & Cultural Services | 1973 | 7.3 | 26.5 | 66.1 | 822 |
| | 1969 | 8.0 | 27.2 | 64.8 | 444 |
| - Sewerage (Including waste treatment facilities) | 1973 | 13.2 | 29.5 | 57.3 | 991 |
| | 1969 | 7.1 | 46.3 | 46.6 | 367 |
| - Urban Planning & Development | 1973 | 4.5 | 32.6 | 62.9 | 104 |
| | 1969 | 2.0 | 20.6 | 77.4 | 41 |
| <u>Tasks of All Government Levels</u> | | | | | |
| - Public Administration | 1973 | 22.3 | 35.8 | 41.9 | 2305 |
| | 1969 | 24.0 | 36.8 | 39.2 | 1283 |
| - Education Systems for Employees | 1973 | 21.6 | 42.6 | 35.8 | 769 |
| | 1969 | 19.2 | 58.1 | 22.7 | 392 |
| - Roads (Highways included) | 1973 | 37.3 | 32.3 | 30.4 | 5702 |
| | 1969 | 40.9 | 32.3 | 26.8 | 2340 |
| - Subsidies (Tourism, Industry, Commerce) | 1973 | 40.4 | 26.1 | 33.5 | 80 |
| | 1969 | 39.6 | 25.2 | 35.2 | 34 |

| Table 1: continued | | | | | | |
|--|---------------------|------|-------------------------|-------|-------|-----------------------------------|
| Function | Level of Government | Year | Percentage Distribution | | | Total (in 10 ⁶ SFr) |
| | | | Federal | State | Local | |
| - Housing | | 1973 | 43.2 | 24.4 | 32.4 | 301 |
| | | 1969 | 24.1 | 49.3 | 26.6 | 104 |
| - Civil Defense | | 1973 | 52.7 | 20.9 | 26.3 | 500 |
| | | 1969 | 55.3 | 22.8 | 21.6 | 271 |
| TOTAL (Without public enterprises) | | 1973 | 36.2 | 36.6 | 27.2 | 28862 |
| | | 1969 | 39.4 | 37.0 | 23.6 | 16247 |
| TOTAL (Including all public enterprises) | | 1973 | 56.1 | 25.5 | 18.4 | 50750 |
| | | 1969 | 60.0 | 25.6 | 14.4 | 27581 |

*) e) = estimated

Note: Minor items are excluded; the city expenditures of Basle have been included in the state government expenditures for statistical reasons; public enterprises comprise broadcasting system, social insurance, real value insurance, public industrial utilities, transportation (excluding postal services and railroad), and contributions to employee retirement.

Source: Computed from E.St.A., Oeffentliche Finanzen der Schweiz 1969 and 1973; Statistisches Jahrbuch der Schweiz, 1971, and several unpublished materials from E.St.A. .

For functions met by federal and state governments spillover considerations apply (higher education, university research), as well as technological arguments, e. g., the impossibility of division in production (e. g. airports). The situation is similar for the functions met by the state governments on their own, but in a spatially more restricted sense - with the exception of health services (Public Health). On the state-local level economies and (from a certain size on) diseconomies of scale ¹⁾ as well as notions of the state government concerning the minimal provision of certain public services (e. g. primary schooling) seem to be decisive. Not covered by our argumentation are the expenditures of the social welfare system; however, it is not a question of the quantitatively important social insurance services (these are dealt with at the federal government level), but of relief for the poor (charity) in cases where national insurance affords no assistance. Such aid is steadily decreasing in importance. Most of the exclusively local expenditures are easily economically justified. This applies also to such expenditures in which the three levels have a larger share. These may be either services which are dealt with on each federal level (e. g. public administration) or services of a highly heterogeneous nature (e. g. national and state highways, and local roads and streets); statistical data, however, do not clearly differentiate between them.

Most of the other countries considered in this paper present a situation similar to that in Switzerland ²⁾ (see Table 2) ³⁾.

-
- 1) For the United States some evidence is given by Hirsch (1970, chapt. 9) and for the United Kingdom by Gupta and Hutton (1968). However, most studies of local government services estimate economies of scale by a regression of per capita expenditures instead of a measure of output on population, among other variables which does not adequately permit the separation of changes in unit costs from changes in costs resulting from increased service level per capita.
 - 2) We have of necessity given a rather incomplete description of the Swiss federal structure; for a more detailed analysis see Frey (1974) and Frey, Neugebauer and Zumbuehl (1975).
 - 3) The United Kingdom is excluded from this comparison as it presents only two governmental levels, however see part IV, Tables 5 and 7.

Table 2: Distribution of All Government Expenditure by Function and Level of Government, 1971

| Level of Governm. and Function | Country | CANADA ^{a)} | | | FRANCE | | | GERMANY | | | SWITZERLAND | | | UNITED STATES | | |
|--------------------------------|-------------------------------------|----------------------|------|------|--------|---|---|---------|------|------|-------------|------|------|---------------|------|------|
| | | F | S | L | F | S | L | F | S | L | F | S | L | F | S | L |
| <u>Federal Level</u> | | | | | | | | | | | | | | | | |
| | Nat. Defense & Int. Relations | 100.0 | -- | -- | | | | 99.9 | 0.1 | -- | 90.6 | 6.1 | 3.2 | 100.0 | -- | -- |
| <u>Federal-State Level</u> | | | | | | | | | | | | | | | | |
| | Public Welfare & Health | 55.6 | 41.1 | 3.3 | | | | 54.0 | 18.4 | 27.6 | 32.2 | 48.3 | 19.5 | 31.2 | 42.6 | 26.2 |
| | Natur. Resources & Prim. Industries | 63.7 | 36.3 | -- | | | | 40.6 | 20.8 | 38.6 | 44.9 | 21.0 | 34.1 | 78.1 | 17.7 | 4.2 |
| | Transport & Communications | 25.3 | 55.7 | 18.9 | | | | 44.0 | 25.6 | 30.4 | 42.7 | 30.5 | 26.8 | 20.4 | 57.1 | 22.5 |
| <u>State Level</u> | | | | | | | | | | | | | | | | |
| <u>State-Local Level</u> | | | | | | | | | | | | | | | | |
| | Education | 12.3 | 43.0 | 44.8 | | | | 12.5 | 64.0 | 23.5 | 15.0 | 45.9 | 39.0 | 12.7 | 38.9 | 48.4 |
| | Protection | 22.5 | 35.4 | 42.1 | | | | 6.2 | 77.5 | 16.3 | 11.3 | 57.4 | 31.3 | 5.9 | 22.6 | 71.5 |
| | Housing & Urban Renewal | in Other | | | | | | 10.8 | 49.1 | 40.1 | in Other | | | 56.6 | 2.8 | 40.6 |
| <u>Local Level</u> | | | | | | | | | | | | | | | | |
| <u>All Levels</u> | | | | | | | | | | | | | | | | |
| | General Government | 52.3 | 24.6 | 23.1 | | | | 22.2 | 38.3 | 39.5 | 22.3 | 35.7 | 42.0 | 40.3 | 27.6 | 32.1 |

a) 1968

*) For detailed terms used for functional breakdown and the sources used here see Tables 13 and 15 (part IV).

Looking at the problem from^a schematic angle, we find again that the task of national defense, the maintenance of international relations, as well as national development programs, rank among those services that the federal government handles essentially on its own¹⁾. Services that fall within the responsibility of both, federal and state governments, are public welfare, transportation and communication, and higher education, whereas health care is one of the services provided for exclusively at the state level.

What has been said about the state-local and strictly local functions in Switzerland is also valid, grosso modo, in the other countries, dealt with in this paper. In Table 2, however, the expenditure groups are already so strongly aggregated that marked deviations in certain categories and countries become only partially apparent. A detailed study would, e. g., show that in Canada the aid to primary industries is mainly a function of the provinces, that in the United States transportation is not a major task of the federal government, and that in France the task for education lies to a large extent in the hands of the central government²⁾.

The full extent, to which the various functions are fulfilled by the different government as well as by all levels together cannot, however, be seen alone in the structural data presented above. For example, national defense expenditures in the United States constitute a considerable part of federal expenditures (as well as of the GNP), whereas in Switzerland they are by comparison insignificant - to a great extent because the fulfilment of this function is for the most part the immediate task of the individual citizens themselves, so that the real costs involved do not appear as public expenditures³⁾.

1) This last statement is not obvious from our tables, but see e. g. Haller (1969, p. 146).

2) For the last point see, e. g., Delorme (1973a, p. 15 et seqq.).

3) One could show similar 'invisible' federal expenditures for Germany in the period between the wars (see Weitzel, 1967). For the conventional method of measuring the distribution of government activity by level of government and functions see part IV, Table 13.

2. Financing Government Activity

In order to see how the provision of publicly supplied goods and services is financed, we start with the public sector revenue structure of a fictitious federal economic country - this being a composite of the (equally weighted) revenue structures of all six countries dealt with here. This structure would look as follows for the year 1970¹⁾.

- approximately 32 % consumption taxes
- approximately 39 % income taxes (personal and corporation income taxes)
- approximately 9 % wealth taxes
- approximately 20 % other taxes and non-tax receipts (especially charges and interest earnings)


However, as the following table shows, substantial deviations are to be found in the various countries.

| Deviations from the fictitious composition of the all governments total revenue of the ^{six} countries, 1970*) | | | | | | |
|---|-----|----|--------|----|------|------|
| Countries | CND | FR | F.R.G. | SZ | U.K. | U.S. |
| Revenue | | | | | | |
| Consumption taxes | | ++ | | | + | |
| Income taxes | | - | | + | | ++ |
| Wealth taxes | + | | - | | | |
| Other taxes and non-tax revenue } } | | | + | | | + |

*) ++/+ = very strong / strong positive or negative deviation
 --/- = very strong / strong negative deviation

¹⁾ Computed from Table 21 and further sources cited in its footnote.

Especially notable there is the importance of indirect (consumption) taxes in France and the pronounced direct taxation in the United States of America.

We can also discern a rough schema for the distribution of the revenue sources among  government levels:

- Sources exploited solely by the federal government are in general (i) customs-duties, and (ii) general excise duties;
- Sources exploited together with the state governments (either in competition with them or jointly, e.g., as tax-sharing) are (i) personal income tax, (ii) corporation income tax, and (iii) general consumption tax;
- Sources exploited solely by the state government are (i) special consumption taxes, (ii) motor vehicle taxes, and (iii) various minor taxes;
- Sources exploited by local government are (i) wealth taxes, and (ii) various minor taxes and - an often important source - user charges and fees.

There are various deviations from this schema which, however, are not restricted solely to differences in the distribution of revenue sources (own revenue sources, shared revenue sources) but also to differences in organization, that is: do we have in the tax exemption competition or cooperation between the various government levels?

Thus we have in Canada a clear system of separation as far as indirect taxes are concerned and a loose cooperation with direct taxes. In France the opposite is true; local governments have shared the indirect taxes with the central government for a long time (however to a small part). This method has been extended also to the relations between central governments and states (départements) since World War II. In Germany there exists complete

cooperation among all three levels of government for the three largest and shared tax sources since 1969. In Switzerland indirect taxation is in the hands of federal government while all three levels compete in the case of direct taxation. In the United Kingdom tax sources are mainly separated. The central government collects the direct and the consumption taxes, local governments concentrate on wealth taxes. Non-tax revenues also play a major role on the local level. Although the situation in the United States is formally one of complete competition, each of the three levels of government monopolizes more or less some tax sources. Thus, direct taxes go mainly to the federal government and indirect taxes to the state governments while the communities rely primarily on wealth taxes.

Obviously, that the various government levels per country have different revenue structures given the differences in the availability of tax sources. This can be seen in Tables 22 to 25 (part IV).

Intergovernmental grants are finally a further revenue source of major importance for the subcentral levels of government:

| Federal government grants-in-aid to subcentral governments *) | | | | | | |
|---|---------------|--------------|------------------|--------------|----------------|----------------|
| | CND (1969) | FR (1968) | F.R.G. (1967) | SZ (1968) | U.K. (1969) | U.S. (1969) |
| Total (in 10 ⁶) | 2473 | 9077 | 20120 | 1864 | 2370 | 19947 |
| In % of federal gov. total expenditure | 23.0 | 6.5 | 33.0 | 28.9 | 14.3 | 10.0 |
| In % of subcentral governments total expenditure | 31.5 | 20.0 | . | 27.0 | 47.7 | 19.0 |
| In % of GNP | 3.5 | 1.6 | 4.1 | 2.5 | 5.2 | 2.3 |

*) Shared revenues, loans and repayable advances are excluded

Sources: For Canada Canadian Tax Foundation, The National Finances, 1969-1970; for France Andre (1973) and Delorme (1973); for Germany B.M.F., Finanzbericht 1969; for Switzerland Rohr and Gut (1970); for the United Kingdom Annual Abstracts of Statistics, 1971; for the United States Tax Foundation, Facts and Figures on Government Finance, 1971.

7 C.S.O.,

As these data show the central government level transferred grants in the amount of 2-5% of the GNP to the subsequent units (in most cases to the state governments). This accounted for between 7% (France) and 33% (Germany) of central government total expenditure. In all cases the support from the federal government accounts for one fifth to one third of the state governments total revenue. The same relationship exists for transfers from the states to the local government. It must, however, be noted that these comparisons have minor importance as both the conditions and the mechanisms vary strongly from country to country. This point will be discussed below.

3. Intergovernmental Fiscal Relations

As Break (1967, p.100) and Burkhead and Miner (1971, p.285) show in more detail, a taxonomy of intergovernmental fiscal relations is not a simple matter; classification is complicated because of the multiple and frequently conflicting purposes of specific intergovernmental fiscal arrangements. Moreover, as a glance at the available statistics shows, it is most difficult to obtain sufficiently detailed material on specific questions. For this reason we must forgo more detailed comparisons at this point¹⁾ but we will present the basic characteristics of the intergovernmental fiscal relations of the six countries we are considering²⁾:

Canada: The Canadian intergovernmental fiscal relations may be characterized as follows³⁾: Over the last decade the federal government has substantially reduced its personal income tax and corporation income tax in order to make room for corresponding provincial taxes. The federal government makes transfers from its own resources to the provinces: the provincial taxes are used to calculate how much the uniformly calculated tax revenue of a province lies below the national average and this difference is then made up. Conditional grants-in-aid have recently been of increasing importance. This applies to transfers from federal to provincial governments as well as to transfers between the latter and municipalities, whereas the relation between federal and local level government is of minor relevance (For a quantitative picture see part IV).

¹⁾ See, however, Tables 26-29 in part IV which present data of the flow of intergovernmental transfers as well as of the functional composition of conditional grants.

²⁾ We will concentrate mainly on the differences in federal-state government relations, as those between state and local governments are similar in the countries investigated here (with the exception of the United Kingdom, of course).

³⁾ See Clark (1969), Moore, Perry and Beach (1966), Sproule-Jones (1974), and Canadian Tax Foundation, The National Finances 1974-1975 (1975, p.154 et seqq.) for a detailed picture.

France¹⁾ is said to be one of the most centralized countries of the developed western world: First, about 85% of the total tax receipts (about 80% of total government revenue) are collected by the central government; then, the central government exerts its influence on the subcentral units through its grants policy, especially through subsidies for investments. As the investments of subcentral governments are financed to a large amount through loans on the one hand, and as these loans are only granted (by a financial organization controlled by the central government) after the central government's subsidy has been approved on the other hand, the amount of these subsidies is relatively small (about 16 to 20% of the total revenue of the subcentral governments). Nevertheless, its influence is huge. If one adds shared (consumption) taxes, it can be seen that about 40% of the subcentral revenue is under the control of the central government.

Germany²⁾: When the financial reform of 1969 took place the hitherto existing sharing between federal and state government in the personal and corporation income tax yield was extended to include the value-added tax as well. This means that some 70% of the total state and federal tax revenue is collected jointly. The income from the first two taxes mentioned above is divided equally between both levels - as stipulated in the constitution. The income from the value-added tax is divided between federal and state governments in a ratio of about 70:30³⁾. One quarter of the state share is used for a horizontal equalization, namely to boost the tax revenue of the financially weaker states until it reaches 95% of the average of all states (in DM per capita).

Horizontal and vertical equalization effects result further from the fact that certain tasks are handled by the federal and state

1) Delorme (1973, p.34 et seq.)

2) See Haller (1969a), Strauss (1969), and Hunter (1973).

3) This ratio is subject to variation as it is regulated by law, in other words, not anchored in the constitution.

governments together (so called Gemeinschaftsaufgaben), whereby the central government - as part of an effective stabilization and economic growth policy - gives investment aids to both, the state as well as local governments.

In Switzerland¹⁾ state and local governments have a relatively large income from taxes which they impose either jointly or in competition with the other levels of government. However, there are still substantial governmental transfers between federal and state, and state and local government levels whereby not only vertical equalization effects are sought but - especially with conditional grants - horizontal equalization effects as well. The latter remain, however, relatively modest; these measures, intended to produce a horizontal impact, are probably of less importance than the horizontal effects resulting from agricultural subsidies and from welfare payments (national insurance).

Similarly to France the central government's influence in the United Kingdom²⁾ is relatively large since the local governments receive roughly one half of their tax revenues in the form of grants from the former. These transfers, mainly unconditional grants, are used to finance current local expenditures, for the tax on land and buildings constituting the main revenue source (the so called local rate) seems rather inelastic in relation to local income growth³⁾. The central government, however, has an

¹⁾ See Rohr and Gut (1970), Lehner (1971), and Haller (1969a).

²⁾ Page (1967), and Peacock and Wiseman (1967, p. 99 et seqq.)

³⁾ The local government, however, has the power to change the tax rates but not the tax base. Nevertheless, these revenues are not so inelastic as they appear at the first glance: the doubling of the GNP in money terms during the last 20 years has been accompanied by a three fold increase of the revenue of these taxes.

influence also on local capital expenditures which are financed either out of surpluses of the current budget or by loans or, more recently, by bonds and mortgages.

United States¹⁾: As in Switzerland the intergovernmental fiscal relations in the United States are restricted primarily to conditional payments in the form of matching grants for the state governments. That is, a certain amount must be raised by the recipient before the federal government makes such a grant. This is not to any extent an attempt to equalize the burden carried by the states, even when the state tax capacity is considered in determining the apportionment of such grants. Rather, the principle purpose is to encourage state government initiative in carrying out such tasks as the federal level itself is strongly interested in. Numerous programs have been implemented by the federal government in this context, principally in the field of health and welfare but also for the construction and maintenance of roads and for the school system.

To sum up: Nearly all imaginable intergovernmental fiscal relations (and its changes) can be found in the countries considered in this handbook during the last decade: Changes in the allocation systems for tax sources as well as in the sharing systems of taxes and jointly levied; changes in the shares of subcentral governments in relation to federal government's revenues in order to allow for tax increases of the state governments; increases of the number of additional conditional grants; definition of tasks of common interest combined with cost sharing of the programs resulting thereof.

¹⁾ See Break (1967), Ecker-Racz (1970), Maxwell (1969), Wagner (1971), and Netzer (1974).

B. Fiscal Redistribution in Federal Economic Systems

A second function of the public sector is to bring about a socially desired distribution of income, which is mostly interpreted in terms of a more equal distribution of income, than allowed by the market-process. As shown in various treatises (Oates, 1968, p.43, 45; Pommerehne, 1976) there are a number of reasons why it is not to be expected that such a redistribution policy will be carried out on a large scale on the level of sub-central governments:

- (i) State and local governments often do not dispose of the necessary margin to enforce an aggressive redistribution policy, because the extent to which they can lay down the tax rates is already marked out by the central government, as for example in France.
- (ii) Moreover, because of the mobility of the economic subjects (and other factors of production) the incentives for such an enforcement do not exist on the local and state governmental level, for it is not to be excluded that by coerced redistribution - as e.g. by help of the simple majority rule - the afflicted individuals will react by migrating to a community or state that is more advantageous to them (see, e.g., Negishi, 1972).

If these reflections on the possibilities and incentives for a redistribution policy in federal economic systems are correct, then it can be expected that redistribution mainly takes place through the budget of the central government (Greene, 1970). Furthermore, if the function of the distribution branch is regarded as an insurance of income one might argue that only the federal level can take such a risk (Rodgers, 1974, pp.174-180).

For various reasons it is not easy to find out empirical evidence for (or against) these conclusions: in the absence of market prices as well as informations about the quantities of publicly supplied goods and services, demanded in a different amount by members of different income classes, the deduction of the extent by which members of different income classes draw benefits from public programs is allowed only on the basis of more or less plausible assumptions. Of a similar problem is the determination of tax incidence, i.e. the ascertainment of the final resting place of the tax payments (and other public receipts).

All the same of late we can find a number of analysis concerning the question of budgetary redistribution in federal states. Some of them proceed by not only looking at the public revenues but by trying to adjoin the total costs of public programs to the different income classes by more or less ingenious criteria. Others choose the realized benefit as a point of reference for the change in the welfare position of the individual, i.e. utility functions are explicitly introduced.

Total costs as point of departure

In all treatises of the first group it is - usually tacitly - assumed, that every money unit spent by the government represents a money unit worth of benefit to someone.¹⁾ So the main point is to allocate taxes and other public receipts as well as the expenditures of the different levels of governments valued in terms of their costs that range to the income classes.

As Dodge (1975) has figured out for Canada in 1970

- by applying the usual incidence assumptions - the incidence of state and local taxes and other receipts is regressiv, i.e. that the poorer families pay a greater percentage of their

¹⁾One of the few to mention this assumption explicitly is Tucker (1953, p.528)

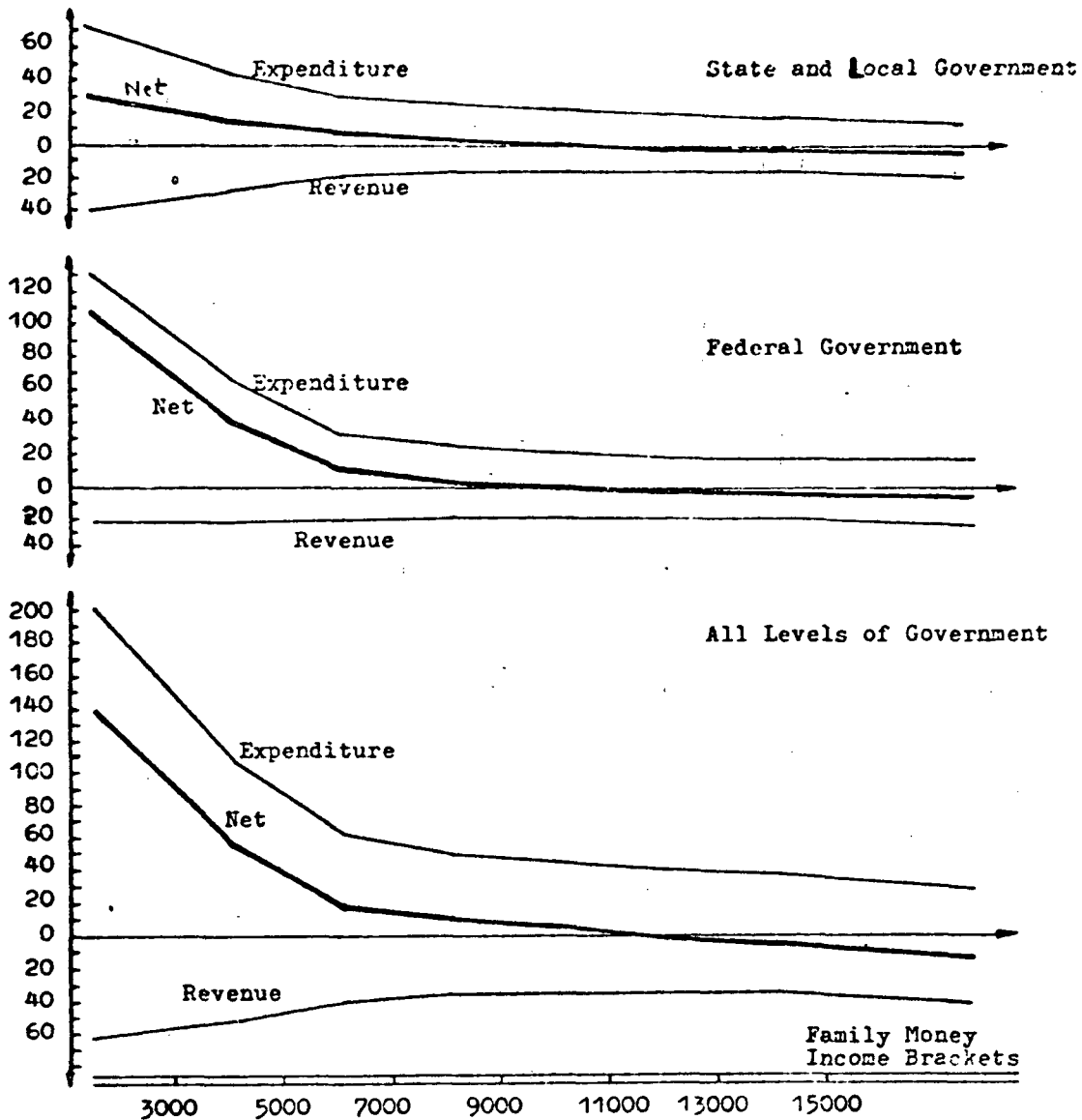
Table 3 : GOVERNMENT SECTOR FISCAL INCIDENCE BY LEVEL OF GOVERNMENT, CANADA, 1970*

| Levels of Government \ Income Class | Family Money Income Class (in 1000 can.\$) | | | | | | | | Total |
|---|--|---------|---------|---------|----------|-----------|-----------|---------------|---------|
| | 0-3.0 | 3.0-5.0 | 5.0-7.0 | 7.0-9.0 | 9.0-11.0 | 11.0-13.0 | 13.0-15.0 | 15.0 and over | |
| Families (in 1000) | 1106.9 | 963.0 | 946.1 | 979.9 | 853.5 | 633.9 | 425.8 | 854.9 | 6764.0 |
| (in %) | 16.4 | 14.2 | 14.0 | 14.5 | 12.6 | 9.4 | 6.3 | 12.6 | (100.0) |
| Broad Income (in 10 ⁶) | 1368.2 | 3179.1 | 5669.1 | 8135.7 | 8804.2 | 7969.2 | 6214.2 | 19852.3 | 61192.0 |
| (in %) | 2.2 | 5.2 | 9.3 | 13.3 | 14.4 | 13.0 | 10.2 | 32.4 | (100.0) |
| Total state and Local Revenue (in 10 ⁶) | 553.5 | 922.7 | 1166.9 | 1576.3 | 1703.6 | 1517.2 | 1143.3 | 4383.7 | 12967.2 |
| (in %) | 4.3 | 7.1 | 9.0 | 12.2 | 13.1 | 11.7 | 8.8 | 33.8 | (100.0) |
| (in % of Broad Inc.) | 40.5 | 29.0 | 20.6 | 19.4 | 19.4 | 19.0 | 18.4 | 22.1 | - |
| Total state and Local Expenditure (in 10 ⁶) | 983.8 | 1375.3 | 1668.4 | 2045.7 | 1954.0 | 1524.8 | 1057.0 | 2792.5 | 13401.5 |
| (in %) | 7.3 | 10.3 | 12.4 | 15.3 | 14.6 | 11.4 | 7.9 | 20.8 | (100.0) |
| (in % of Broad Inc.) | 71.9 | 43.3 | 29.4 | 25.1 | 22.2 | 19.2 | 17.0 | 14.1 | - |
| Total Federal Revenue (in 10 ⁶) | 302.9 | 724.2 | 1198.8 | 1639.4 | 1773.2 | 1619.4 | 1224.0 | 4381.7 | 12863.6 |
| (in %) | 2.3 | 5.6 | 9.3 | 12.7 | 13.8 | 12.6 | 9.5 | 34.1 | (100.0) |
| (in % of Broad Inc.) | 22.1 | 22.8 | 21.1 | 20.2 | 20.1 | 20.3 | 19.7 | 22.1 | - |
| Total Federal Expenditure (in 10 ⁶) | 1772.9 | 2018.4 | 1815.3 | 1929.3 | 1797.8 | 1408.9 | 1062.1 | 3057.2 | 14861.9 |
| (in %) | 11.9 | 13.6 | 12.2 | 13.0 | 12.1 | 9.5 | 7.1 | 20.6 | (100.0) |
| (in % of Broad Inc.) | 129.6 | 63.5 | 32.0 | 23.7 | 20.4 | 17.7 | 17.1 | 15.4 | - |
| Adjusted Broad Income (in 10 ⁶) | 3268.5 | 4925.9 | 6787.0 | 8894.9 | 9079.1 | 7766.4 | 5965.9 | 16936.5 | 63624.2 |
| (in %) | 5.1 | 7.7 | 10.7 | 14.0 | 14.3 | 12.2 | 9.4 | 26.6 | (100.0) |
| (in % of Broad Inc.) | 238.9 | 154.9 | 119.7 | 109.3 | 103.1 | 97.5 | 96.0 | 85.3 | - |

- 26 -

*Computed from (Dodge) (1975, Table 5, lines 27-33). The broad income concept includes all family money income, adds the family non-cash income and subtracts the government bond interest received and the transfers payments from government to families. See Dodge (l.c., p.13 et seqq.) for more detailed comments.

Figure 1: GOVERNMENT SECTOR FISCAL INCIDENCE AS A PERCENTAGE OF FAMILY BROAD INCOME BY LEVEL OF GOVERNMENT, CANADA 1970*)



*)Source: Table 3

income in state and local revenue than rich families (see Table 3 and Figure 1)¹⁾. But he also shows that the expenditure programs of state and local governments favor especially the lower income

¹⁾The same result is reached for Canada by Maslove (1973) for 1969 and Gillespie (1964) for 1961. This incidentally also applies for most of the federal systems we are concerned with here.

classes so that - looked at from a 'net' point of view - a slight redistribution in favor of the poorer families can be revealed. This also applies, as the analysis of Johnson (1974) shows, for a single province.¹⁾

This slight redistribution "to the bottom" is financed by a net-charge on the higher income groups, while state and local budgets are roughly neutral in terms of their redistributive impact on the members of the middle income groups. This result is compatible with the thought above that a larger budgetary redistribution can hardly be expected to be accomplished by local or state level of government.

On the federal level of government, on the other hand, a much more explicit redistribution in favor of the poor can be expected, and this seems to be the case, as shown in Table 3 . Families with an income over 11000 can\$ are in a worse position, while especially the poorest families gain. This result coincides with an earlier study by Gillespie (1964, chapt.4) for 1961. Furthermore, as Dodge shows the result is finally relatively insensitive to the precise assumptions made about the shifting of taxes and the incidence of expenditures.

Comparable analysis for other countries can be found by Hake (1972) and Hanusch (1976) for Germany; by Gillespie (1965), in the Tax Foundation Study (1967), by Musgrave, Case and Leonhart (1974) as well as by Reynolds and Smolensky (1974) for the United States and by Cartter (1955) as well as - with restrictions - by Nicholson (1964) for the United Kingdom. The following table condenses the results of the latest studies²⁾. It shows that the results for

¹⁾ See Johnson (1974 , espec. p.70 et seqq.). This analysis - the only one for Canada that distinguishes between provinces and municipal governments - applies only to the province and municipalities of Ontario.

²⁾ A total analysis of this kind has not yet been carried out for Switzerland. The studies of Bobe (1975) and Cazenave and Morrisson (1974) for France refrain from separating federal, state and local levels of government. The older studies about the countries treated here, as well as studies about other nations are not mentioned here. But see Windmuller and Mehran (1975, Vol.II, chapt.X).

| Table 4: GOVERNMENT SECTOR NET FISCAL INCIDENCE AS A PERCENTAGE OF HOUSEHOLD MONEY INCOME | | | | | | | | | | | |
|---|---|---------|---------|---------|---------|---------|---------|----------|-----------|-----------|-----------|
| BY LEVEL OF GOVERNMENT | | | | | | | | | | | |
| Country, Year and Income Class Levels of Governm. | UNITED STATES 1970*) | | | | | | | | | | |
| | Household Money Income Class (in 1000 US\$) | | | | | | | | | | |
| | 0-2.0 | 2.0-3.0 | 3.0-4.0 | 4.0-5.0 | 5.0-6.0 | 6.0-7.0 | 7.0-8.0 | 8.0-10.0 | 10.0-15.0 | 15.0-25.0 | 25.0-88.1 |
| State-Local Government | 88.1 | 42.5 | 24.4 | 15.9 | 8.0 | 5.5 | 4.2 | 3.2 | 1.9 | -0.9 | -4.2 |
| Federal Level Government | 173.9 | 87.8 | 51.2 | 29.3 | 15.1 | 7.5 | 2.8 | -1.0 | -3.4 | -5.5 | -20.2 |
| All Governm. Total Net Incidence | 262.0 | 130.3 | 75.6 | 45.2 | 23.1 | 13.0 | 7.0 | 2.2 | -1.5 | -6.4 | -24.4 |

| Table 4: continued | | | | | | | | | |
|--|---|---------|----------|-----------|-----------|-----------|-----------|------------|--|
| Country, Year and Income Class Levels of Governm. | W'GERMANY 1969**) | | | | | | | | |
| | Household Money Income Class (in 1000 DM) | | | | | | | | |
| | 0-7.2 | 7.2-9.6 | 9.6-12.0 | 12.0-14.4 | 14.4-18.0 | 18.0-21.6 | 21.6-30.0 | 30.0-120.0 | |
| Local Government Expenditure | 34.7 | 25.1 | 20.4 | 17.2 | 15.2 | 14.1 | 12.9 | 11.3 | |
| State Government Expenditure | 31.2 | 23.4 | 19.6 | 17.1 | 15.6 | 14.7 | 13.9 | 13.2 | |
| Federal Government Expenditure | 66.3 | 46.3 | 35.3 | 27.7 | 2.3 | 20.7 | 17.8 | 14.2 | |
| Total Government Revenue | 40.2 | 45.1 | 45.5 | 44.1 | 41.9 | 41.0 | 38.0 | 50.9 | |
| All Governm. Total Net Incidence | 92.0 | 49.8 | 29.6 | 18.0 | -8.7 | 8.5 | 6.5 | -12.2 | |

*) Computed from *(Reynolds)* and *(Smolensky)* (1974, Appendix, Table B-1, line 7; C-1, line 6; C-2, line 7; D-1, line 13; D-2, line 8.

***) Computed from *Hanusch* (1978, Appendix, Table 2, lines 1,2,8; 13, line 27; 14, line 27; 15, line 27.

these federal economic systems are very similar to those for Canada.¹⁾

Cost and benefit as point of departure

All the fiscal incidence studies mentioned here do not represent a methodically unobjectionable comparison, because of the manner in which expenditure streams are transferred into fictitious incomes. It is not possible to use different criteria for the estimation of privately and jointly supplied goods and services. On the contrary a consistent principle must be applied which - as used by Aaron and McGuire (1970) - transfers the basic idea of the optimization calculus in the section of private goods to the publicly provided goods.

Including a separable utility function and using the same data and assumptions about the tax incidence that the Tax Foundation study applies, the authors show that the direction and the dimension of budgetary redistribution then depend to a crucial extent on the assumptions on the elasticity of marginal utility of private income (ϵ). Aaron and McGuire choose only two utility functions (with an ϵ of, respectively, -1 and -2) for demonstration purposes and figure out the total fiscal incidence of all governmental levels in the United States.

Consequently it seems more interesting to carry out an analysis that (i) distinguishes explicitly between the different levels of government and (ii) that does not start by *values* for ϵ chosen in an arbitrary manner, or by one - out of many - empirically *estimated* function of marginal utility,²⁾ but one that examines which *shape* the function of marginal utility would have to show if it should represent different redistribution hypotheses. Compared

¹⁾This also applies for detail studies on particular governmental units. See e.g. Eapen and Eapen (1973) for Connecticut, and Hanusch (1975) for the local governments in Germany.

²⁾For the latter proceeding see Maital (1973) for the United States.

with the spectrum of so far estimated values of ξ , it is more likely to be able to prove, to what extent the hypotheses put forth at the beginning of this section hold. Such an attempt can be found - for each level of government - for a Swiss state (Kanton) by Pommerehne (1976).

The main results are - as far as local governments are concerned - shown in Table 5 . It shows that on the level of local government there is in fact no redistribution of a greater extent¹⁾, at least if we assume for ξ a range between $0 > \xi > -1.6$, a range which comprises the results of all the estimations of the elasticity of marginal utility known to us.

If, in addition to the local budget, we take into consideration the budget of state government, the result changes only insignificantly , whilst the lower as well as the middle income groups are a bit better off (see Table 6).

Only by including the incidence of the central government budget, we can notice bigger changes as the members of the lowest income groups continue to be - very considerably - better off, while the middle and the higher income groups lose in net. It must be added to this result that the state of Basel-Land raises much more on federal taxes than it gets back in form of expenditure for services rendered by the federal government. In other words the regional redistribution is added to the personal redistribution. But the poorest households are not only excluded from this, but continue to be in a better position. This corroborates the hypothesis put forth above.

¹⁾This applies to a consideration of relative redistribution effects (relative to money income before state activity). If the focus is on absolute net gains, it shows that the members of the middle income groups are the main winners. Recently very similar results have been reached by Goldberg, Pilgrim and Flanagan (1974) for an American community (City of Peoria, Illinois).

Table 5: LOCAL GOVERNMENT SECTOR NET FISCAL INCIDENCE AS A PERCENTAGE OF HOUSEHOLD MONEY INCOME BY ALTERNATIVE VALUES OF THE ELASTICITY OF MARGINAL UTILITY OF INCOME (ϵ), 74 COMMUNITIES OF THE STATE BASEL-LANDSCHAFT (SWITZERLAND), 1969*)

| Income Class Values of ϵ | Household Money Income Class (in 1000 sFr) | | | | | | | | |
|---|--|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 0-9.0 | 9.0-13.0 | 13.0-17.0 | 17.0-21.0 | 21.0-25.0 | 25.0-29.0 | 29.0-32.0 | 32.0-37.0 | over 37.0 |
| 0.0 | 51.5 | 6.2 | 3.9 | 2.4 | 1.0 | -0.2 | -1.6 | -2.8 | -6.3 |
| -0.4 | 24.3 | 4.6 | 3.6 | 2.8 | 1.8 | 0.8 | -0.4 | -1.6 | -4.8 |
| -0.6 | 15.7 | 3.5 | 3.1 | 2.6 | 1.8 | 1.0 | 0.0 | -1.1 | -4.0 |
| -1.0 | 5.8 | 1.0 | 1.5 | 1.6 | 1.4 | 1.0 | 0.3 | -0.6 | -2.1 |
| -1.4 | 1.6 | -1.2 | -0.1 | 0.3 | 0.5 | 0.5 | 0.0 | -0.6 | 0.0 |
| -1.6 | 0.6 | -2.1 | -1.0 | -0.4 | -0.1 | -0.1 | -0.3 | -0.8 | 1.0 |
| -2.0 | -0.3 | -3.4 | -2.2 | -1.6 | -1.2 | -0.9 | -1.0 | -1.4 | 2.9 |

* Computed from *(Pommerehne)* (1976, Tables 1, 2).

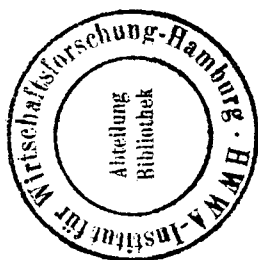
Table 6 : GOVERNMENT SECTOR NET FISCAL INCIDENCE AS A PERCENTAGE OF HOUSEHOLD MONEY INCOME BY ALTERNATIVE VALUES OF THE ELASTICITY OF MARGINAL UTILITY OF INCOME (ϵ), STATE BASEL-LANDSCHAFT (SWITZERLAND), 1969*)

| Level of Gov. Values of ϵ | State-Local Government Sector | | | | | | | | | |
|---------------------------------------|--|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| | Household Money Income Class (in 1000 sFr) | | | | | | | | | |
| | 0-9.0 | 9.0-13.0 | 13.0-17.0 | 17.0-21.0 | 21.0-25.0 | 25.0-29.0 | 29.0-32.0 | 32.0-37.0 | over 37.0 | |
| 0.0 | 123.3 | 19.4 | 11.4 | 7.1 | 3.5 | 0.1 | -2.7 | -5.1 | -17.6 | |
| -0.5 | 49.4 | 14.8 | 10.5 | 7.9 | 5.5 | 2.8 | 0.5 | -1.2 | -13.6 | |
| -1.0 | 16.0 | 7.9 | 6.6 | 5.8 | 4.8 | 3.4 | 1.9 | 1.0 | -8.5 | |
| -1.5 | 4.0 | 1.8 | 2.1 | 2.4 | 2.4 | 2.1 | 1.4 | 1.3 | -3.1 | |
| -2.0 | 0.2 | -2.6 | -1.9 | -1.1 | -0.6 | -0.3 | -0.3 | 0.1 | 2.3 | |

Table 6 : continued

| Level of Gov. Values of ϵ | All Levels of Government | | | | | | | | | |
|---------------------------------------|--------------------------|------|------|------|------|------|------|------|-------|--|
| | | | | | | | | | | |
| 0.0 | 177.9 | 26.1 | 10.7 | 4.9 | 0.1 | -4.6 | -7.0 | -7.5 | -22.8 | |
| -0.5 | 76.7 | 20.0 | 9.1 | 5.8 | 2.7 | -1.0 | -2.6 | -2.5 | -17.2 | |
| -1.0 | 28.3 | 10.6 | 3.6 | 2.7 | 1.6 | 0.0 | -0.7 | 0.6 | -10.0 | |
| -1.5 | 9.7 | 1.9 | -2.9 | -2.3 | -1.8 | -2.2 | -1.4 | 1.3 | -2.1 | |
| -2.0 | 3.5 | -4.5 | -8.5 | -7.3 | -6.1 | -5.6 | -3.8 | -0.2 | -29.2 | |

*) Source: See Table 5 and unpublished data for state and federal government taxes.



C. Stabilization Policy in Federal Countries

A third function of the public sector consists in stabilizing the economic development. As shown by different authors (e.g. by Robinson and Courchene, 1969; Oates, 1968; Kock, 1975), this task also lies with the central government:

- (i) State local governments are usually not equipped with the necessary (discretionary) instruments needed for effective countercyclical policy. They cannot, for example, control the money supply, they usually have only restricted access to the capital market and often they do not have revenues and expenditures flexibly enough organized at their disposal as for example is the case in France and partly in the United Kingdom¹⁾.
- (ii) Furthermore, there are only weak incentives on the level of subcentral governments to pursue an active stabilization policy. One reason lies in the negative effects of external debt of local governments units, another in the fact, that because of the openness of regional or local economies the regional fiscal multipliers can be rather small. So each unit is in danger of bearing the costs of its countercyclical policy without getting back its share of the benefits.

Therefore it is hardly to be expected that a subcentral government will decide (especially when of a small spatial and economic size) the realization of an effective stabilization policy - at least as long as it is not guaranteed that all others do the same. For a single region, on the other hand, it is rewarding, then, to break out of any agreement.

Both kinds of restrictions are far less distinct on central government level. The central government is equipped with important

¹⁾ For France see e.g. Autin (1973), for the United Kingdom Hicks and Hicks (1973, p.145).

fiscal and monetary instruments. But it is also this authority that is held mainly responsible for the application and the efficacy of the steps taken in stabilization policy.

This is reflected in numerous laws, for example in the 'Employment Act of 1946', which compells the US federal government

"to promote conditions under which there will be afforded useful employment for those able, willing, and seeking work, and to promote maximum employment, production and purchasing power".

The institutions set up in sequence appear almost more important than the law itself, especially the 'Joint Committee on the Economic Report of the President' and the scientific 'Council of Economic Advisers to the President', which deal with problems of middle and short range economic policy in preference to long range planning. Very similar developments can be shown for most other countries, in Canada, on the basis of the recommendations of the 'Royal Commission on Dominion-Provincial Relations' (1940) and the 'Dominion-Provincial Agreements Acts' of 1942, 1947, 1962 et seq. that refer to it; in Germany, on the basis of the budget laws, which since 1960 hold the legal authority of the federal government 'to freeze particular expenditure groups on grounds of cyclical policy', but even more on the basis of the more comprehensive 'Law to Promote Stability and Economic Growth' of 1967.

The question that interests now is whether the central government is really the primary agent for stabilizing output and prices and whether these goals are without significance for the subcentral governments.

First proof of this argument may be found in Hansen and Perloff (1944) who provide data to show that subcentral government finance had generally not been anticyclical but rather procyclical in the United States during the late twenties and throughout most of the thirties. Smithies (1946) and Brown (1956) reach similar results on the basis of more detailed quantitative analyses though they point out that the functioning of compensatory finance was not really understood at that time.

If these principles were realized and observed or realized but disregarded on the state-local level in sequel cannot be easily ascertained for the post-war-period. For all that Rafuse (1965) shows, that the subcentral governments have made a substantial contribution to countercyclical policy in the United States between 1945 and 1961. A closer look shows, however, that this policy had no regard to the respective state of economy as the revenues and expenditures simply expanded continuously in this period.

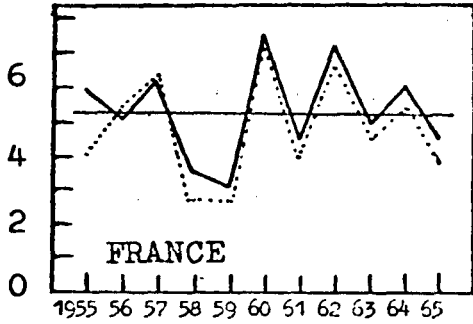
The analysis of Hansen (1969, chapt.2 et seq.) which deals with the later period between 1955 and 1965 reaches very similar results, even though slightly different methods of measurement are used to estimate the impact for government budget. However, all these studies are similarly defective as they do not try to really quantify the extent of the stabilizing effect of the state-local budget changes and, in a second step, to compare them with the stabilizing impact of the changes in the federal budget.

Using the same method as Hansen (1969, chapt.1)¹⁾, Snyder (1970, 1973) has lately tried to analyze the relative contribution of the state-local government budgets of various countries to stabilization - that means relative to the stabilizing impact of the federal government. Snyder first calculates the combination between direct and multiplier effects, or the total effects, of the year to year variations in subcentral government budgets and then standardizes them by expressing them as a percentage of GNP. The point of reference used to evaluate the overall effects of subcentral government budget changes is at first whether or not the actual growth rate of GNP fluctuates less with their effects than if they had been neutral from year to year. Figure 2 shows these relationships for four countries, evaluating the short-run stabilizing effects of state-local governments after accounting for

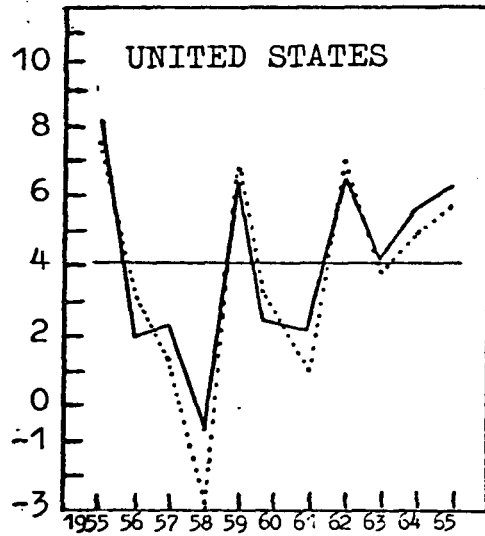
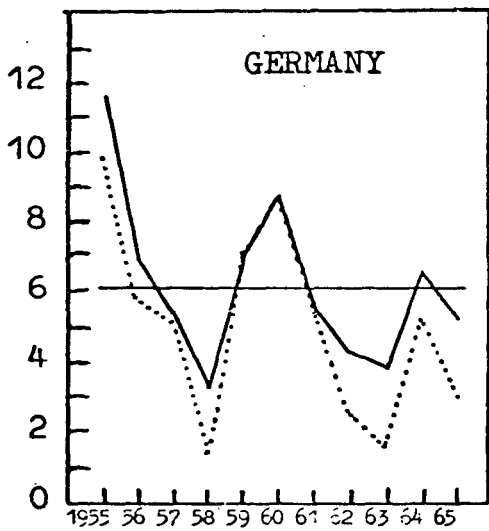
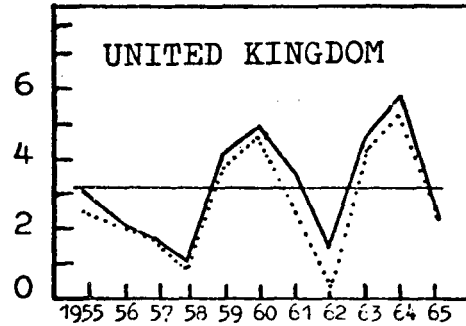
¹⁾This method of measuring the impact of various types of budget changes draws from studies by Brown (1956), Musgrave (1964) and others. The underlying model is simple compared with the large econometric models which have been developed for particular countries. On the whole a comparison between the different countries by means of these econometric models is very restricted. The approach used by Hansen makes this possible and intends just this.

Figure 2: THE IMPACT OF STATE AND LOCAL GOVERNMENT BUDGET*)

% GNP (Growth Rate)



% GNP (Growth Rate)



*)Note: Solid and horizontal lines are actual and average GNP (Growth Rate), respectively; dotted lines are the rates without the impact of state-local government budget changes. Source: Snyder (1973, p.204).

the effects of other government budget changes: horizontal lines give the average GNP growth rates, solid lines the actual GNP growth rates, and dotted lines the estimates of how GNP might have developed if there had been no effects of the state and local budget changes (but the effects of other government budgets as well as the combined influence of all other exogenous and endogenous factors are included). This last line is gained by subtracting the total effects of subcentral government budget changes from the actual GNP growth rate.

As shown in Table 7 the impact of the subcentral budgets of the countries dealt with here has actually been stabilizing, even though to a limited extent, with the exception of Germany, that has comparatively the largest share of state-local expenditures of the GNP.

Changing the ceteris paribus assumptions some public finance scholars have also used a second base of comparison, the 'pure cycle'. The pure cycle is defined as the variations in GNP growth rates that would have occurred if there had been no changes in the expenditures and revenues of the different governmental units from year to year¹⁾. It is calculated by subtracting the total stabilizing effects of the general government budget changes from the actual GNP.

In Table 7 the 'potential stabilization' is given in line 3. Lines 2 and 4 show the net stabilizing effects of the state-local governments respectively the general government.

According to the results (in line 5a) Germany and the United States had the largest potential stabilization of general governments and also achieved the strongest net stabilizing effects by eliminating 34% and 40% respectively of the potential fluctuations in the pure cycle. The percentage of stabilization in France was substantially less (13%), almost no stabilization was achieved in the United Kingdom.

¹⁾ See Hansen (1969, pp.55-57) for more detailed comments on the pure cycle concept.

| Table 7: STABILIZING EFFECTS OF STATE AND LOCAL GOVERNMENT BUDGETS, 1955 - 1965*) | | | | |
|---|--------|---------|-------------------|------------------|
| Countries Stabilizing Effects by Level of Government | FRANCE | GERMANY | UNITED KINGDOM | UNITED STATES |
| 1. Net stabilizing effects of state-local government | 0.22 | 0.50 | 0.12 | 0.11 |
| (a) Gross stabilizing | 0.42 | 0.77 | 0.32 | 0.45 |
| (b) Destabilizing | 0.20 | 0.27 | 0.20 | 0.34 |
| 2. Net stabilizing effects in relation to pure cycle | -0.31 | 0.28 | -0.06 | 0.35 |
| (a) Gross stabilizing | 0.15 | 0.66 | 0.23 | 0.56 |
| (b) Destabilizing | 0.46 | 0.38 | 0.29 | 0.22 |
| 3. Potential stabilization for pure cycle | 1.29 | 2.98 | 1.37 | 4.37 |
| 4. Net stabilizing effects of general government | 0.17 | 1.01 | 0.07 | 1.75 |
| 5. Percentage potential stabilization achieved | | | | |
| (a) General government | 13 | 34 | 5 | 40 |
| (b) State local government (item 1. : item 3.) | 17 | 17 | 9 | 2 |
| (c) State local government (item 2. : item 3.) | -24 | 9 | -4 | 8 |

*) To calculate the stabilizing effect there is no major problem, excepted the one: in cases where the budgetary impact is in the right direction but is greater than the amount necessary to reach the average growth rate, the effect must be divided into one part that was stabilizing and the other part which has a destabilizing impact. Thus, the sum of gross stabilizing effects minus the sum of destabilizing effects - each was divided by the number of years in the period covered by the study - gives the net average stabilizing (destabilizing) impact.

Source: Snyder (1973, p.206) and own computations. The reader should note that the percentage of potential stabilization achieved by general government (Line 5a) is not identical with Hansens' (1969, p.69), because they exclude the effects of public enterprise investments and are calculated on a somewhat different basis.

To evaluate the impact of subcentral budgets on potential stabilization, in Germany and the United States the impact of the state and local budgets was stabilizing under the pure cycle concept (line 2) as well as under the concept used first (line 1)¹⁾. For France and the United Kingdom the evaluation depends on the norm of comparison used. If the impact of central government is taken as given exogenously, the effects of state and local budgets are generally stabilizing (line 5b) but they were generally destabilizing if the effects of central government are excluded (line 5c).

Although one point of reference may not be generally preferable to the other, Snyder gives some reasons why it appears more appropriate to measure net stabilization by the pure cycle concept. Thus he concludes that state-local budgets are generally stabilizing and have in France and the United Kingdom a stronger impact than the general government because of the destabilizing effects of the central government and - as in the case of the United Kingdom - of the social security system²⁾. For Germany and the United States which have a rather large subcentral sector, however, the impact of state-local budgets seems smaller than that of central government.

More interesting perhaps is that the impact of state-local government budgets does not vary as much as that of the central government during the cycle. This leads to the supposition that on subcentral government level more importance is attached to maintaining a balanced budget than on national level, i.e., state and local governments do not seem to practice a conscious stabiliza-

¹⁾ It is interesting that there exists either an extensive autonomy of state and local governments in these two countries (as in the United States) or at least as refers to the expenditure part of the budgets (as in Germany).

²⁾ For the last point see Snyder (1970 b, p.268 et seq.) and Balopoulos (1967, p.205).

is not to be expected and in reality it was more or less the central government which gave the tendentially correct countercyclical impulses.

Any comparison between central and subcentral stabilization policy is rendered more difficult because the central government has often made mistakes¹⁾, either as a result of false judgement of future development or because of an insufficient choice of appropriate instruments and their adequate combination, or on account of the fact that the government has no incentive to pursue a permanent countercyclical policy. Indeed, beside the avoidance of forecasting mistakes, the reduction of time lags in the decision-making process and the existence of determination and firmness in policy which are crucial contributory determinants for the effectiveness of any stabilization policy, the will of the central government must consist in the ability to apply countercyclical measures at any time. And this is not to be expected a priori considering the multiplicity of goals as well as the election dates that lie four to five years apart from each other²⁾.

1) It is interesting to note that the short-run countercyclical impact on central government was to a great extent on account of the automatic stabilizers. See Hansen (1969) and as concerns studies about built-in-flexibility, e.g., Ruggeri (1973).

2) See e.g. Lindbeck (1970, pp.25-30) and Prest (1968, pp.4-5). For the logical extension of the last idea and the first empirical test of 'political business cycles' for Germany with promising results see Frey and Schneider (1975).

III. POLITICAL AND SOCIAL ASPECTS OF FISCAL FEDERALISM:

Some preliminary Findings

Up to now, the federal economic system was assumed to be exogenous given and research concentrated on the division of functions under aspects of allocation, distribution and stabilization, whereas now the question is reversed. The federal economic system is no longer assumed as given, but the question is rather how political, social and economic variables influence it. In other words: what determines the demand for centralization/decentralization of the governmental service and policy complex in the various countries? We will try in the following paragraph to give a tentative answer with the help of quantitative techniques (cross-section analysis).

Another question frequently raised in the social sciences concerns the dynamics of federalism. Is what White (1933, p.140) said, indeed the case, namely that the "tide of centralization will probably steadily sweep power from the localities to the states, and from the states into the hands of the national authorities" and, as Lord Bryce claimed, that federalism is only a transitory form of the state on its way to centralism?

A. Demand for Decentralization

The Arguments

As the examination of a number of papers on federalism suggests, the dimension in which a decentralization of the governmental complex is desired seems to be determined mainly by the following

factors:

- (i) The size of the country (in terms of population) is generally considered an important determinant of demand, as the costs of decision making (including the information costs) rise, as a rule, more than the increasing population, that means, the larger the population the smaller will be the demand for centralization.
- (ii) We find a similar procedure in the geographical area with the additional argument that the larger the area the fewer spatial and external effects are produced in the public services¹⁾. In other words, it can be expected that the degree of centralization varies - ceteris paribus - inversely to the geographical extension of a country.
- (iii) This ceteris paribus condition does not equally hold for developed and underdeveloped countries, as the latter have to bear higher real costs for decentralization, owing, e.g., to the scarcity of qualified government personnel. To put it the other way round: the higher the wealth of a country measured in per capita income the more likely a marked decentralization can be expected.
- (iv) The diversity in demands for publicly provided goods and services is another important determinant for only the decentralized provision of a public good allows the realization of potential welfare gains for groups with similar demands within groups but significant differences in demands between groups. The underlying causes of this diversity in demands can be traced back to such factors as to the differences in language (see, e.g., Macmahon, 1962, for India) which frequently coincide with differences in religion (so e.g. in Canada; see McWhinney, 1962) as well as differences

¹⁾ That these factors can play an important part in the elaboration of a constitution has been shown in slightly different terminology by Brady (1947, p.124) for Australia and Macmahon (1962) for India.

in race (as e.g. in Czechoslovakia) and taken as a whole - quasi as differences in culture - create divergent tastes¹⁾.

But as the demand of an individual for a particular (public or private) good depends on both, his tastes and his level of income, we ^{derive} a further determinant *of* the demand for a decentralized governmental structure; that is the degree of inequality in the distribution of income. It is to be expected that the higher the degree of income inequality the stronger the demand for federalism, ceteris paribus.

- (v) A last hypothesis touches upon political and institutional constraints on the demand for federalism, in other words, the question of whether the political system is at all prepared and willing to take regional interests into account. We can judge this by observing to what extent there is no authoritarian political system, whether autonomous groups are tolerated in the political field at all etc. The less this is the case, the less it can be expected that the demand for decentralization can succeed itself.

Measuring Centralization

As we have no comprehensive measure of centralization, that is, none that meets all the requirements of political science, of economics and, e.g., of constitutional law, we will take as an operating measure of 'fiscal federalism' the proportion of central government consumption in the overall governments consumption expenditures (CGE). The choice of this reference ratio instead of another based on the expenditure or revenue side of the budget is admittedly arbitrary. It is, however, that measure for which we have recourse to relatively reliable sources²⁾ in which, moreover, the

¹⁾ These are only a few examples but the list can easily be enlarged considerably under one aspect or another.

²⁾ The ratios are computed from U.N., Yearbook of National Accounts Statistics, 1970 to 1973, and, in few instances, from other sources like U.N., Statistical Yearbook, 1970 to 1973.

intergovernmental transfers are treated uniformly¹⁾.

The Results

Equation 1 indicates that in conformity with our expectations the degree of fiscal centralization varies inversely with the size of the country.

$$(1) \text{ CGE} = 70.68 - 0.07P$$

(25.01) (2.09)

$$N = 50, \quad \bar{R}^2 = 0.05, \quad \overline{\text{CGE}} = 68.38$$

where CGE = Central government consumption expenditure as a percent of all governments consumption expenditure, 1967-1969,

P = Population (in 10^6), 1968. The data are taken from I.B.R.D., World Atlas 1970,

N = Sample size,

\bar{R}^2 = Coefficient of determination (adjusted for degrees of freedom),

$\overline{\text{CGE}}$ = Mean value of CGE.

The numbers in parantheses give the absolute values of the t-statistic for coefficient; they indicate in other words that in the equation (1) the influence of the population is statistically significant²⁾. The explained fraction of the variance in the degree of fiscal federalism is, however, small.

¹⁾In addition to this we have computed various further measures for centralization using as categories both federal expenditure and federal revenue. As the regressions between them show that they reflect the degree of fiscal centralization approximately equally well, we confine ourselves to the results of regression using the measure mentioned above. A more detailed discussion of the difficulties of determining an adequate measure of the degree of fiscal centralization can be found in Musgrave (1969, Chapt.14) and Oates (1972, p.195 et seqq.)

²⁾As level of statistical significance we take the 95 percent level of confidence. All equations are estimated by ordinary least square (OLS) technique.

Equation (2) adds to (1) the geographical size (GS).

$$(2) \quad CGE = 75.59 - 0.05 P - 2.58 GS \\ (25.14) \quad (1.37) \quad (2.06)$$

$$N = 50, \quad \bar{R}^2 = 0.11$$

where GS = Geographical size (in 10^6 square kilometers),
ca. 1960. The data are taken from F.A.O.,
FAO Production Yearbook 1965.

This variable, too, is statistically significant and presents the expected (negative) sign. It adds, however, only little to the explanatory power of eq. (1). One reason for this might be that not only the size of a country but also the spatial settlement of the population, measured, e.g., by the degree of urbanization, determines the degree of fiscal federalism (see eq.(3)).

$$(3) \quad CGE = 82.04 - 0.05 P - 1.18 GS - 0.49 U \\ (20.55) \quad (1.71) \quad (0.96) \quad (3.16)$$

$$N = 50, \quad \bar{R}^2 = 0.249$$

where U = Degree of urbanization (percentage of
population living in cities over 20 000)
in 1960; the data are taken from Russett
et al. (1967, p.51 et seqq.).

Equation (3) shows that this supposition is confirmed - the urbanization variable has the expected sign, it is statistically strongly significant and it contributes considerably to the explanation of the variance in fiscal centralization.

As equations (4) and (5) indicate, this is also valid for that variable supposed to represent the degree of development of a country, the GNP per capita.

$$(4) \quad CGE = 84.22 - 0.06 P - 0.16 GS - 0.19 U - 0.01 GNP \\ (20.91) \quad (2.15) \quad (0.13) \quad (1.06) \quad (3.07)$$

$$N = 50, \quad \bar{R}^2 = 0.359$$

and, excluding the statistically insignificant variables GS and U from eq.(4),

$$(5) \quad CGE = 82.12 - 0.07P - 0.01GNP \\ (26.02) \quad (2.48) \quad (5.22)$$

$$N = 50, \quad \bar{R}^2 = 0.383$$

where GNP = GNP per capita (in US\$) 1968 and, in few instances, 1967 or 1969. The data are taken from I.B.R.D., World Atlas 1970, 1971.

As surmised above the trend to decentralization in public finances is stronger in more prosperous countries than in poorer countries; that is, it appears that the real resources necessary for the institution of a decentralized decision-making structure represent a considerable obstacle in less developed countries.

To investigate the thesis that the differences in demand for publicly supplied goods and services are a relevant determinant of the demand for fiscal decentralization we estimate first the influence of possible determinants of differences in tastes, including a series of dummy variables indicating whether a country is homogeneous or heterogeneous as regards the linguistic, racial, religious, and, as an aggregate of all three, cultural characteristics (see eq. (6.) to (9)).

$$(6) \quad CGE = 81.82 - 0.07P - 0.01GNP + 0.35L \\ (21.53) \quad (2.36) \quad (4.66) \quad (0.74)$$

$$N = 50, \quad \bar{R}^2 = 0.356$$

where L = Dummy variable for the degree of lingual homogeneity: 1 = lingual homogeneity, 0 = lingual heterogeneity. The dummies are computed from Banks and Textor (1963, printout No. 68).

$$(7) \quad CGE = 84.44 - 0.06P - 0.01GNP - 4.60RD \\ (19.82) \quad (2.31) \quad (4.60) \quad (0.94)$$

$$N = 50, \quad \bar{R}^2 = 0.368$$

where RD = Dummy variable for the degree of racial differences: 1 = racial homogeneity, 0 = racial heterogeneity. The dummies are taken from *Banks and Textor* (1963, printout No. 67).

$$(8) \quad CGE = 78.46 - 0.07 P - 0.01 GNP - 6.12 DR$$

(18.43) (2.48) (4.86) (1.37)

$$N = 50, \quad \bar{R}^2 = 0.368$$

where DR = Dummy variable for the degree of differences in religion: 1 = religious homogeneity, 0 = religious heterogeneity. The dummies are taken from Banks and Textor (1963, printout No. 66).

$$(9) \quad CGE = 81.57 - 0.06 P - 0.01 GNP + 5.20 DC$$

(23.07) (2.24) (5.19) (1.00)

$$N = 50, \quad \bar{R}^2 = 0.381$$

where DC = Dummy variable for the degree of differences in culture: 1 = cultural homogeneity, 0 = cultural heterogeneity. Cultural homogeneity is assumed if the dummies L, RD, and DR are all equal unit.

As the equations show none of the taste-variables tested here prove to be statistically significant. In addition to this only two variables, L and DC, have the expected (positive) sign. This disappointing result could possibly be explained by the fact that merely dummy-variables and not cardinal data were used, and also to the fact that the data used refer to the population as a whole and so do not reflect diversities in geographical groupings of the population.

This latter argument seems to be the more important one, for even when we used cardinal data of the degree of ethnic and linguistic fractionalization and of the degree of religious heterogeneity a statistically significant influence of these variables did not appear. This is made clear by the following equations (10) to (12).

$$(10) \quad CGE = 84.55 - 0.06 P - 0.01 GNP + 8.20 LF$$

(15.98) (1.95) (4.34) (0.94)

$$N = 42, \quad \bar{R}^2 = 0.326$$

where LF = degree of linguistic fractionalization, ranging from 1 (linguistic homogeneity) to 0 (linguistic heterogeneity).

$$(11) \text{ CGE} = 80.59 - 0.07 P - 0.01 \text{ GNP} + 2.39 \text{ ELF}$$

(18.16) (2.40) (4.80) (0.31)

$$N = 50, \bar{R}^2 = 0.359$$

where ELF = degree of ethnic and linguistic fractionalization, ranging from 1 (homogeneity) to 0 (heterogeneity).

$$(12) \text{ CGE} = 85.54 - 0.06 P - 0.01 \text{ GNP} - 0.05 \text{ PR}$$

(4.76) (0.82) (5.02) (0.22)

$$N = 35, \bar{R}^2 = 0.395$$

where PR = Percent of prevailing religion, ranging of 30 to 100 percent. The data for all equations are computed from Taylor and Hudson (1972, pp.271-280) ¹⁾.

In order to be able to account for the lacking regional aspect we include a dummy variable (S) in equation (5) which states in which countries sectionalism is extreme and in which polities the opposite is true.

$$(13) \text{ CGE} = 86.57 - 0.07 P - 0.01 \text{ GNP} - 10.0 S$$

(19.68) (2.14) (4.41) (1.69)

$$N = 32, \bar{R}^2 = 0.434$$

where S = Dummy variable for the degree of sectionalism: 1 = sectionalism is extreme, rather than negligible, 0 = sectionalism is negligible, rather than extreme. The data are taken from Banks and Textor (1963, printout 112). ²⁾

No.

¹⁾ Similar disappointing results are obtained using data from other sources, e.g., the indexes for ethnic and linguistic fractionalization developed by Muller (1964).

²⁾ Sectionalism is defined as "the phenomenon in which a significant percentage of the population lives in a sizeable geographic area and identifies self-consciously and distinctively with that area...." (Banks and Textor, 1963, p.88).

As equation (13) shows the - admittedly rough - indicator for regional differences in tastes reaches just the degree of statistical significance and shows the expected negative sign, i.e. countries with strong sectionalism are much more decentralized than those without significant sectional forces. Moreover, this variable also adds to the explanatory power of the previous equations.

A further variable determining the demand for decentralization which we take now into account is the degree of inequality in the distribution of income (K):

$$(14) \quad CGE = 47.51 - 0.06P - 0.01GNP - 0.20S + 92.94K$$

(2.75) (2.25) (1.77) (0.02) (2.16)

$$N = 18, \quad \bar{R}^2 = 0.483$$

where K = Kuznets-index of household's income inequality computed for the case of 20 intervals. The Kuznets-index range of \uparrow^0 (perfect equality) to 1 (perfect inequality) \uparrow . The data are taken from Jain (1974).

Equation (14) indicates that - against the expectations voiced in the last paragraph - the greater the inequality in the distribution of income among the households, the greater is the existing fiscal centralization. This is valid in the same way if we investigate the distribution of income among income recipients, instead of household incomes, and if for both variables besides

¹⁾Under perfect equality each 5 percentile group would receive 5 percent of the total income. The absolute deviation (d) of the income share of each 5 percentile group from 5 percent is therefore a measure of inequality. This gives

$$K = \frac{\sum |d|}{20 \times 9.5}$$

where the division by 9.5 is necessary to standardize the measure to range from 0 to 1 (because the arithmetic average of the 20 absolute deviations ranges from 0 in the case of perfect equality to 9.5 in the case of maximum inequality).

the Kuznets -measure we use such measures as the Gini -index and the Entropy -measure¹⁾. Thus, the thesis concerning the influence of differing demands for publicly supplied goods and services on the formation and promotion of federative structures seems - at least at the first glance - hardly tenable. Rather, it appears to be the case (in agreement with the results of empirical work on the budgetary redistribution in federal systems mentioned above) that major differences in income give rise to a stronger redistribution through the central government. This leads, as measured by our indicator for fiscal centralization, to stronger centralization.

Before we can make this inference, however, there is a possible objection we must consider, namely that the data on household income distribution used here are inadequate and that knowledge of geographical income distribution is necessary. We have attempted to take these considerations into account in the following equation (15):

¹⁾Equation (14') gives the results using the latter index:

$$(14') \quad CGE = 60.15 - 0.07P - 0.01GNP - 0.77S + 61.59E$$

(4.90) (2.28) (1.71) (0.10) (2.09)

$$N = 18, \quad \bar{R}^2 = 0.473$$

where E = The Entropy-measure of inequality of the household incomes, which ranges from 0 (perfect equality) to 1 (perfect inequality); see Jain (1974) for a more detailed definition; the data are taken once again from Jain (1974).

$$(15) \text{ CGE} = 10.0 - 0.07P - 0.01\text{GNP} - 1.90S + 344.3K - 90.5\text{RID}$$

$$(6.29) \quad (2.78) \quad (0.63) \quad (2.21) \quad (3.01) \quad (2.13)$$

$$N = 10, \quad \bar{R}^2 = 0.667$$

where RID = a weighted coefficient of variation measuring the dispersion of the regional income per capita levels relative to the national average while each regional deviation is weighted by its share in the national population¹⁾. The data are taken from Williamson (1965, p.12); they refer in most cases to the early sixties.

As equation (15) shows the spatial distribution of income in a country appears to be of greater importance for the demand for fiscal decentralization; the RID-variable is statistically significant, it has the expected (negative) sign, and adds a larger amount to the explanatory power of the last equation. Nevertheless, there is a simple reason why this conclusion cannot be regarded as safely established. The reason is that our sample sizes (and thus the degrees of freedom) are very small as a consequence of the standard we set to the statistical materials used here.

With all the estimations we have made up to now, we can account for hardly more than half of the variance in the CGE. From this we can conclude that there are, besides the determinants of demand considered so far, certain other factors which influence the division of fiscal activity among levels of government.

It is, for example, conceivable that substantial impulses for the strengthening or weakening of fiscal federalism depend on the

¹⁾More precisely:

$$\text{RID} = \frac{\sqrt{\sum_i (y_i - \bar{y})^2 \cdot \frac{N_i}{N}}}{\bar{y}}$$

where N_i = population of the i^{th} region,

N = national population,

y_i = income per capita of the i^{th} region,

\bar{y} = national income per capita.

It should be noted that the regional breakdown by Williamson is more detailed than usually appearing in the literature. The RID value for Italy, for example, is computed from 19 Italian regions.

degree to which the legal framework of a society imposes constraints on the decentralization in the decision-making process. Democratically governed countries, who have chosen the federative form of decision-making in their constitution are more likely to maintain a federal form of government and they will not be able to oppose a vertical power distribution to the same degree as, for example, is the case in authoritarian political systems. These considerations are integrated into the following equations ((16) to (18)):

$$(16) \text{ CGE} = 73.24 - 24.32 F$$

(28.17) (4.18)

$$N = 50, \bar{R}^2 = 0.237$$

where F = Dummy variable of formal federalism:
1 = formally non-federal country, 0 = formally federal country. The dummies are computed from Elazar (1968).

$$(17.) \text{ CGE} = 72.3 - 10.64 F - 25.48 \text{ VPD}$$

(27.10) (1.41) (2.55)

$$N = 45, \bar{R}^2 = 0.314$$

where VPD = Dummy variable for the degree of vertical power distribution: 1 = polity, where the regional governments are independent in their respective spheres; 0 = polity where the central and regional governments being coordinate and independent in their respective spheres. See Banks and Textor (1963, printout 7165) for more detailed comments and data.

7 No.

$$(18) \text{ CGE} = 80.86 - 7.5 F - 25.48 \text{ VPD} - 11.69 \text{ SR}$$

(13.95) (1.00) (2.63) (1.78)

$$N = 42, \bar{R}^2 = 0.353$$

where SR = Dummy variable for the status of the regime:
1 = nation where the status of the regime is authoritarian or totalitarian; 0 = nation where the status of the regime is constitutional (government conducted with reference to recognized constitutional forms). The data are taken from Banks and Textor (1963, print-out 794) and Banks (1972, segment 1).

7 No.

Equations (16) and (17) indicate, as we expected, that certain constraints for the creation or the removal of decentralized fiscal decision-making are already given with the formal framework of a society. As equation (18) makes clear, however, the variable for the degree of formal federalism becomes statistically insignificant when further political variables are introduced¹⁾. Still, the sign of all the variables considered here was - as could be expected - negative and this would finally indicate that both forces, the political as well as the economic, play a role in determining the concrete formation of the federal economic system of a country²⁾.

B. Tendencies in Fiscal Federalism

The question whether federalism is only a transitory form of the state on its way to centralism cannot be answered with certainty. A number of arguments indeed speak for an increasing centralization, especially:

- (i) the extension of the spatial limits for costs and benefits of public activities resulting, e.g., from improved transportation facilities and the resulting increase in intra-national mobility;
- (ii) the growing demand for a more active redistribution policy, especially in economically more developed countries;

¹⁾ This was also the case with numerous other variables used for characterizing the political systems.

²⁾ A closer investigation of the interdependence was impossible for two reasons: firstly, the corresponding theoretical approaches are not very well developed, and secondly, the statistical data that would then be necessary are very likely not to be available (but see, e.g., Stephens, 1974, concerning this last point).

(iii) the mandate for the central government, often anchored in the constitution for ensuring a minimal provision of certain goods and services in all regions of a country¹⁾.

These facts lead, according to a number of authors²⁾, to a stronger dependence of the subcentral governments which, they claim, can be seen, e.g., in the increasing portion of the total public expenditures carried out by the central government.

Table 8 shows that this does not seem to be the case for the countries dealt with here (for the post-war period of 1950-1970). No matter how unconditional and conditional grants are treated - whether they are wholly or partially ascribed to the central or to the subcentral governments - the central government share in the total expenditures of all governments considered here has in tendency decreased³⁾. But it is nonetheless correct that this

1) Further reasons follow from the possibly increasing uniformity in individual demands which in turn results from the increasing uniformity in tastes (with growing equality in the access to information) as well as from the equalization in individual income; technical reasons as well (economies of scale) could support this.

2) See e.g. May (1969) and the literature cited therein.

3) Oates (1972, p.232) found the same results for 12 of 15 countries (for which he had data) from 1950-1965 by contrasting the central government shares in all governments current expenditures. See also Pryor (1968, p.70 et seqq.) for similar results.

Table 8: DEGREE OF CENTRALIZATION IN GOVERNMENT EXPENDITURE: PERCENTAGE DISTRIBUTION OF TOTAL EXPENDITURE, 1950 - 1970*)

| Country \ Year | CANADA | | | | | | FRANCE | | | | | |
|----------------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| | Alternative 1 | | Alternative 2 | | Alternative 3 | | Alternative 1 | | Alternative 2 | | Alternative 3 | |
| | F | S/L | F | S/L | F | S/L | F | S/L | F | S/L | F | S/L |
| 1950 | 52.2 | 47.8 | 61.2 | 38.8 | 64.5 | 34.5 | 85.6 | 14.4 | 87.5 | 12.5 | 87.5 | 12.5 |
| 1955 | 59.2 | 40.8 | 61.4 | 38.6 | 66.5 | 33.5 | 80.5 | 19.5 | 83.3 | 16.7 | 83.3 | 16.7 |
| 1960 | 50.5 | 49.5 | 54.5 | 45.5 | 59.7 | 40.3 | 83.2 | 16.8 | 89.7 | 10.3 | 89.7 | 10.3 |
| 1965 | 43.1 | 56.9 | 49.9 | 50.1 | 52.6 | 47.4 | 81.7 | 18.3 | 86.6 | 13.4 | 86.6 | 13.4 |
| 1970 | 38.1 | 61.9 | 47.5 | 52.5 | 50.0 | 50.0 | 79.3 | 20.7 | 83.3 | 16.7 | 83.3 | 16.7 |

Table 8: continued

| Country \ Year | GERMANY | | | | | | SWITZERLAND | | | | | |
|----------------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| | Alternative 1 | | Alternative 2 | | Alternative 3 | | Alternative 1 | | Alternative 2 | | Alternative 3 | |
| | F | S/L | F | S/L | F | S/L | F | S/L | F | S/L | F | S/L |
| 1950 | 48.4 | 51.6 | . | . | . | . | 32.9 | 67.1 | 42.3 | 57.7 | 42.3 | 57.7 |
| 1955 | 44.3 | 55.7 | 46.0 | 54.0 | 49.0 | 51.0 | 33.4 | 66.6 | 41.4 | 58.6 | 41.4 | 58.6 |
| 1960 | 39.9 | 60.1 | 44.8 | 55.2 | 45.9 | 54.1 | 30.7 | 69.3 | 40.4 | 59.6 | 40.4 | 59.6 |
| 1965 | 40.3 | 59.7 | . | . | 52.6 | 47.4 | 26.9 | 73.1 | 39.9 | 60.1 | 39.9 | 60.1 |
| 1970 | 37.9 | 62.1 | . | . | 53.5 | 46.5 | 26.2 | 73.8 | 38.5 | 61.5 | 38.5 | 61.5 |

Table 8: continued

| Country Year | UNITED KINGDOM | | | | | | UNITED STATES | | | | | |
|-----------------|----------------|------|---------------|------|---------------|------|---------------|------|---------------|------|---------------|------|
| | Alternative 1 | | Alternative 2 | | Alternative 3 | | Alternative 1 | | Alternative 2 | | Alternative 3 | |
| | F | L | F | L | F | L | F | S/L | F | S/L | F | S/L |
| 1950 | 76.6 | 23.4 | 86.0 | 14.0 | 87.7 | 12.3 | 58.3 | 41.7 | 62.2 | 37.8 | 62.2 | 37.8 |
| 1955 | 75.0 | 25.0 | 83.2 | 16.8 | 84.6 | 15.4 | 62.9 | 37.1 | 66.0 | 34.0 | 66.0 | 34.0 |
| 1960 | 68.0 | 32.0 | 72.2 | 27.8 | 80.5 | 19.5 | 57.6 | 42.4 | 62.8 | 37.2 | 62.8 | 37.2 |
| 1965 | 60.6 | 39.4 | 65.0 | 35.0 | 75.0 | 25.0 | 54.8 | 45.2 | 60.9 | 39.1 | 60.9 | 39.1 |
| 1970 | 60.0 | 40.0 | 63.7 | 36.3 | 75.8 | 24.2 | 50.5 | 49.5 | 57.5 | 42.5 | 57.5 | 42.5 |

*) Alternative 1 follows the national accounts in treating all transfers as state-local government expenditures. Alternative 2 follows the public finance statistics in treating unconditional transfers as state-local government expenditures and conditional transfers as federal expenditures. In Alternative 3 all transfers are treated as federal expenditures.

Sources: Tables 9, 10, 26.

development is accompanied by a relative growth of the conditional grants (as measured in the budgets of the receiver units). However, strong assumptions are necessary if we are to conclude from this that the dependence of the subcentral governments has grown. As can be shown using the economic approach, conditional grants became frequently non-conditional because of the adaptability of the recipient; and non-conditional grants permit the decentralized levels to perform their responsibilities more satisfactorily. This opposes - prima facie - a further opinion frequently met, which suggests that thereof a continual shift would follow not only of the fiscal resources to the central government, but also of the responsibilities themselves. But it is hardly possible to investigate this any longer with purely fiscal data, as the central government can turn to such legislative and administrative measures that a change of the structure of federal / subcentral decision making actually takes place which, however, does not appear in our budgetary measure.

IV. DEVELOPMENT AND STRUCTURE OF SELECTED FEDERAL ECONOMIC SYSTEMS

The purpose of this part is to present a compilation of available data on government activity in various developed countries in particular under the aspects of fiscal federalism.

The problem of accuracy and reliability of data in this area are well known. The user of these data is therefore cautioned that the data reported in this study are not in any sense presented as 'reliable' or even 'best' estimates. Our aim was rather to present a compilation of available statistical information in this field.

In general we have attempted to trace the original published source of the data as well as prior compilations using those data. However, in many cases neither of them comprised the data desired. Thus, materials contained in unpublished PhD. theses, mimeographed documents and so on, has been also included.

The data are ordered in following groups:

- Tables 9-12 deal with public expenditure by economic categories and governmental level on national account basis, i.e. all intergovernmental transfers are treated as a part of the recipient unit. Furthermore, all national insurance expenditures are excluded - mainly because of the extreme differences in the insurance systems of the countries considered here.
- Tables 13-15 comprise public expenditure data by function and governmental level on public finance statistics basis, i.e. the intergovernmental transfers are recorded to the level of the recipient unit as long as they are unconditional and to the donor's level if they are conditional payments. Although national insurance also is excluded, the contributions of the various governmental units to the national insurance are included.

- Tables 16-20 deal with all government total employment by governmental units, as well as with the respective wages bill.
- Tables 21-30 comprise a series of data on governmental own revenues, the receipts from other governments as well as on the public debt by level of government.

Throughout the following tables the entry "--" signifies a value not significant different from zero, while "n.a." means that the information is not available for the year in question. The entry "." means that it was not clear whether there exist data at all or it may indicate that we have not had access to these data at the moment.

Source references will be found in the notes of the tables; full citations of all public and other documents may be found in the bibliography. (used)

The figures in the subsequent tables may not add to totals because of rounding.

Table 9: ALL GOVERNMENTS TOTAL EXPENDITURE, 1900 - 1971^{*)}

| Country \ Year | CANADA | | FRANCE | | GERMANY | |
|----------------|--------|-------|--------|--------|---------|----------------------|
| | % GNP | Total | % GNP | Total | % GNP | Total |
| 1900 | 9.5 | 98 | 15.2 | 49 | 14.9 | 4852 ^{a)} |
| 1910 | 11.4 | 244 | 13.7 | 58 | 12.8 | 6986 ^{c)} |
| 1920 | 16.1 | 893 | 25.1 | 454 | 21.3 | 13296 ^{e)} |
| 1930 | 18.9 | 1084 | 19.1 | 752 | 22.2 | 17512 |
| 1938 | 23.1 | 1220 | 26.6 | 1011 | 17.7 | 13997 ^{g)} |
| 1950 | 22.1 | 4080 | 34.4 | 29365 | 29.8 | 25382 |
| 1960 | 29.7 | 11380 | 40.5 | 88190 | 23.3 | 64980 |
| 1965 | 29.7 | 16554 | 40.2 | 136021 | 28.5 | 114350 |
| 1971 | 37.7 | 35220 | 37.5 | 225293 | 27.8 | 167820 ^{h)} |

Table 9 : continued

| Country \ Year | SWITZERLAND | | UNITED KINGDOM | | UNITED STATES | |
|----------------|-------------|-------------------|----------------|-------|---------------|---------------------|
| | % GNP | Total | % GNP | Total | % GNP | Total |
| 1900 | n.a. | 294 | 14.4 | 281 | 7.7 | 1660 ^{b)} |
| 1910 | n.a. | 552 ^{c)} | 12.7 | 272 | 8.2 | 3208 ^{c)} |
| 1920 | n.a. | 1585 | 26.2 | 1592 | 12.4 | 9158 ^{d)} |
| 1930 | 15.9 | 1818 | 26.1 | 1145 | 21.1 | 12266 ^{f)} |
| 1938 | 19.2 | 1838 | 30.0 | 1587 | 20.2 | 17121 |
| 1950 | 19.9 | 3956 | 39.0 | 4539 | 22.3 | 63440 |
| 1960 | 17.7 | 6572 | 31.9 | 7285 | 26.5 | 133692 |
| 1965 | 20.9 | 12507 | 32.6 | 10362 | 26.5 | 180670 |
| 1971 | 24.3 | 24453 | 37.0 | 18117 | 29.7 | 311395 |

a) 1901, b) 1902, c) 1913, d) 1922, e) 1925, f) 1932 g) 1937, h) 1970
^{*)} Total = All governments total expenditure (in 10^6)

Note: The total expenditure used here includes both exhaustive as well as non-exhaustive expenditures, i.e. transfers and subsidies of all governments (see footnotes of the following tables for more special comments); federal, state and local governments contributions to the national insurance are included, but national insurance is excluded.

Sources:

For Canada: 1920 and before Firestone (1958, p.66 and p.129); thereafter D.B.S., National Accounts, Income and Expenditure 1926-1956, 1961, 1967 and 1973.

For France: Andre (1973, pp.50-52); the french data are given in current NF (Nouveau Francs).

For Germany: 1938 and before Andic and Veverka (1964), the GNP data are computed from Hoffmann (1965, p.509 and pp.825-6); thereafter St.B., Volkswirtschaftliche Gesamtrechnungen 1969 and 1972, Statistisches Jahrbuch fuer die Bundesrepublik Deutschland 1974.

For Switzerland: 1930 and before Wittmann (1961, pp.462-5); thereafter E.St.A., Nationale Buchhaltung der Schweiz, several years; Die Finanzen von Bund, Kantonen und Gemeinden 1938-1971.

For United Kingdom: 1950 and before Peacock and Wiseman (1967, pp.153-4 and pp.164-6); thereafter C.S.O., National Income and Expenditure 1963-1973, 1970.

For the United States: GNP data for 1922 and before are taken from KENDRICK (1961), thereafter from Tax Foundation, Facts and Figures on Government Finance 1973; expenditure data are taken from U.S. B.o.C., Historical Statistics of the United States Colonial Times to 1957, Historical Statistics of the United States Continuation to 1962 and Revision, thereafter from Tax Foundation, Facts and Figures on Government Finance 1973.

Table 10: DISTRIBUTION OF ALL GOVERNMENTS TOTAL EXPENDITURE BY LEVEL OF GOVERNMENT, 1900 - 1971^{*)}

| Country Year | CANADA | | | FRANCE | | | GERMANY | | | SWITZER- LAND | | | UNITED KINGDOM | | UNITED STATES | | |
|-----------------|--------|------|------|--------|------|------|---------|------|--------------------|------------------|------|------|-------------------|------|------------------|------|--------------------|
| | F | S | L | F | S | L | F | S | L | F | S | L | F | L | F | S | L |
| 1900 | 57.1 | n.a. | n.a. | 70.5 | 5.8 | 23.7 | 39.7 | 33.2 | 27.1 ^{a)} | 20.4 | 41.2 | 38.4 | 64.8 | 35.2 | 34.1 | 8.2 | 57.7 ^{b)} |
| 1910 | 50.0 | 27.6 | 22.4 | 66.3 | 8.7 | 25.0 | 36.7 | 27.2 | 36.1 ^{c)} | 21.9 | 40.0 | 38.1 | 52.1 | 47.9 | 30.1 | 9.0 | 60.9 ^{o)} |
| 1920 | 59.2 | 17.0 | 23.8 | 81.5 | 3.5 | 15.0 | 35.3 | 27.8 | 36.9 ^{e)} | 38.9 | 30.0 | 31.2 | 80.1 | 19.9 | 39.7 | 9.8 | 50.5 ^{d)} |
| 1930 | 32.1 | 24.6 | 43.3 | 71.9 | 7.1 | 21.0 | 40.1 | 25.1 | 39.6 | 26.7 | 36.7 | 36.6 | 63.3 | 36.7 | 32.5 | 16.3 | 51.2 ^{f)} |
| 1938 | 34.3 | 36.1 | 29.6 | 74.9 | 10.9 | 14.2 | 45.8 | 19.9 | 34.3 ^{g)} | 27.6 | 36.9 | 35.5 | 66.5 | 33.5 | 45.5 | 16.2 | 38.3 |
| 1950 | 52.2 | 25.2 | 22.6 | 85.6 | 4.9 | 9.5 | 48.4 | 30.2 | 21.4 | 32.9 | 35.2 | 31.9 | 76.6 | 23.4 | 58.3 | 15.2 | 26.5 |
| 1960 | 50.5 | 24.1 | 25.4 | 83.2 | 4.7 | 12.1 | 39.9 | 33.2 | 26.9 | 30.7 | 37.7 | 31.6 | 68.0 | 32.0 | 57.6 | 13.8 | 28.6 |
| 1965 | 43.1 | 28.7 | 28.2 | 81.7 | 5.5 | 12.8 | 40.3 | 30.9 | 28.8 | 26.2 | 40.1 | 33.7 | 60.6 | 39.4 | 54.8 | 15.0 | 30.2 |
| 1971 | 37.1 | 37.9 | 25.0 | 76.9 | 5.6 | 17.5 | 37.9 | 33.2 | 28.9 ^{h)} | 25.0 | 40.5 | 34.5 | 58.1 | 41.9 | 48.4 | 18.6 | 33.0 |

a) 1901, b) 1902, c) 1913, d) 1922, e) 1925, f) 1932, g) 1937, h) 1970

*) Percentage distribution:

F = Federal government

S = State governments

L = Local governments

} expenditure as a percent of all governments
total expenditure

Notes: See footnote Table 1 for general comments. Intergovernmental transfers are recorded at the level of the recipient government in the case of both conditional as well as unconditional grants.

Sources: See footnote Table 9

Table 11: DISTRIBUTION OF ALL GOVERNMENTS EXHAUSTIVE AND NON-EXHAUSTIVE EXPENDITURE BY LEVEL OF GOVERNMENT, 1930 - 1971*)

| Country Year | | CANADA | | | | FRANCE | | | | GERMANY | | | |
|-----------------|-----------|--------|------|------|-------|--------|------|---|--------|---------|------|------|----------------------|
| | | F | S | L | Total | F | S | L | Total | F | S | L | Total |
| 1930 | Exh. Exp. | 23.8 | 22.8 | 53.7 | 721 | . | . | . | . | 30.8 | 29.1 | 40.1 | 12340 |
| | Transf. | 47.8 | 29.2 | 23.0 | 356 | . | . | . | . | 53.4 | 13.6 | 33.0 | 6022 |
| | Subsid. | 87.7 | 14.3 | -- | 7 | . | . | . | . | . | . | . | . |
| 1938 | Exh. Exp. | 26.4 | 32.8 | 40.8 | 666 | . | . | . | . | 35.2 | 21.8 | 34.1 | 11296 ^{a)} |
| | Transf. | 37.0 | 44.9 | 18.1 | 492 | . | . | . | . | 52.9 | 14.7 | 32.4 | 2701 ^{a)} |
| | Subsid. | 98.4 | 1.6 | -- | 62 | . | . | . | . | . | . | . | . |
| 1950 | Exh. Exp. | 41.3 | 24.2 | 34.5 | 2425 | . | . | . | . | 43.6 | 31.6 | 24.8 | 17308 |
| | Transf. | 66.2 | 29.6 | 4.2 | 492 | . | . | . | . | 58.8 | 27.1 | 14.1 | 8074 |
| | Subsid. | 95.2 | 4.8 | -- | 64 | . | . | . | . | . | . | . | . |
| 1960 | Exh. Exp. | 39.1 | 23.5 | 37.4 | 6792 | 72.2 | 27.8 | | 60277 | 31.7 | 35.2 | 33.1 | 45990 |
| | Transf. | 64.7 | 28.8 | 6.6 | 4345 | 89.7 | 10.3 | | 22502 | 59.9 | 28.3 | 11.8 | 18990 |
| | Subsid. | 88.9 | 16.3 | -- | 242 | 94.3 | 5.7 | | 5413 | . | . | . | . |
| 1965 | Exh. Exp. | 29.5 | 32.8 | 37.7 | 10788 | 69.0 | 31.0 | | 95982 | 32.5 | 33.0 | 34.5 | 81290 |
| | Transf. | 54.9 | 38.5 | 6.6 | 5404 | 85.5 | 14.5 | | 28966 | 59.6 | 25.8 | 14.6 | 33060 |
| | Subsid. | 83.7 | 16.3 | -- | 362 | 95.4 | 4.6 | | 11073 | . | . | . | . |
| 1971 | Exh. Exp. | 24.8 | 39.6 | 35.6 | 22101 | 69.3 | 30.7 | | 153281 | 28.2 | 36.6 | 35.2 | 118650 ^{b)} |
| | Transf. | 57.0 | 35.2 | 7.6 | 12120 | 85.4 | 14.6 | | 54093 | 61.3 | 25.1 | 13.6 | 49170 ^{b)} |
| | Subsid. | 68.5 | 31.4 | -- | 999 | 95.6 | 4.4 | | 17919 | . | . | . | . |

a) 1937, b) 1970

Table 11: continued

| Country Year | | SWITZERLAND | | | | UNITED KINGDOM | | | UNITED STATES | | | |
|-----------------|-----------|-------------|------|------|-------|----------------|------|-------|---------------|------|------|---------------------|
| | | F | S | L | Total | F | L | Total | F | S | L | Total |
| 1930 | Exh. Exp. | . | . | . | . | 33.2 | 66.2 | 576 | . | . | . | . |
| | Transf. | . | . | . | . | 93.8 | 6.2 | 562 | . | . | . | . |
| | Subsid. | . | . | . | . | 100.0 | -- | 7 | . | . | . | . |
| 1938 | Exh. Exp. | . | . | . | . | 53.6 | 46.4 | 1041 | . | . | . | . |
| | Transf. | . | . | . | . | 90.9 | 9.1 | 529 | . | . | . | . |
| | Subsid. | . | . | . | . | 100.0 | -- | 17 | . | . | . | . |
| 1950 | Exh. Exp. | . | . | . | . | 60.9 | 39.1 | 2508 | 67.9 | 9.7 | 22.4 | 80985 ^{a)} |
| | Transf. | . | . | . | . | 95.2 | 4.8 | 1630 | 76.1 | 11.6 | 12.3 | 13374 ^{a)} |
| | Subsid. | . | . | . | . | 100.0 | -- | 401 | | | | |
| 1960 | Exh. Exp. | . | . | . | . | 61.1 | 38.9 | 5073 | 56.2 | 14.6 | 29.2 | 110601 |
| | Transf. | . | . | . | . | 83.0 | 17.0 | 1685 | 63.0 | 11.0 | 26.0 | 23091 |
| | Subsid. | . | . | . | . | 86.5 | 13.5 | 527 | | | | |
| 1965 | Exh. Exp. | 21.2 | 41.7 | 37.1 | 9738 | 56.6 | 45.4 | 7477 | 54.1 | 14.9 | 31.0 | 162523 |
| | Transf. | }54.6 | 40.8 | 4.6 | 2769 | 73.6 | 26.4 | 2311 | 61.4 | 16.1 | 22.5 | 18149 |
| | Subsid. | | | | | 86.8 | 13.2 | 574 | | | | |
| 1971 | Exh. Exp. | 19.3 | 42.6 | 38.1 | 17120 | 51.5 | 48.5 | 12835 | 45.0 | 19.2 | 35.8 | 263537 |
| | Transf. | }40.0 | 38.6 | 21.4 | 7333 | 70.6 | 29.4 | 4346 | 66.6 | 15.2 | 18.2 | 47860 |
| | Subsid. | | | | | 90.0 | 10.0 | 936 | | | | |

a) 1952

*) Exh. Exp. = Exhaustive Expenditures } as a percent of the respective Total
 Transf. = Transfers
 Subsid. = Subsidies

Total = All governments respective expenditures (in 10⁶)

Sources: see Table 9

Table 12: DISTRIBUTION OF ALL GOVERNMENTS EXPENDITURE ON CAPITAL ACCOUNT AND ON CURRENT GOODS AND SERVICES BY LEVEL OF GOVERNMENT, 1930 - 1971*)

| Country Year | CANADA | | | | FRANCE | | | | GERMANY | | | | |
|-----------------|--------|------|------|-------|--------|------|------|-------|---------|------|------|-------|---------------------|
| | F | S | L | Total | F | S | L | Total | F | S | L | Total | |
| 1930 | CA | 33.8 | 35.1 | 31.1 | 228 | . | . | . | . | 11.7 | 15.7 | 72.6 | 1318 |
| | G&S | 19.3 | 16.6 | 64.1 | 493 | . | . | . | . | 33.1 | 30.7 | 36.2 | 11022 |
| 1938 | CA | 24.7 | 53.1 | 22.2 | 162 | . | . | . | . | 55.8 | 17.2 | 26.9 | 14296 ^{a)} |
| | G&S | 27.0 | 16.6 | 46.8 | 504 | . | . | . | . | | | | |
| 1950 | CA | 15.9 | 39.4 | 44.7 | 497 | . | . | . | . | 13.5 | 25.0 | 61.5 | 2413 |
| | G&S | 47.9 | 20.3 | 31.8 | 1928 | . | . | . | . | 48.5 | 32.7 | 18.8 | 14896 |
| 1960 | CA | 15.1 | 40.5 | 44.4 | 1511 | 47.0 | 53.0 | | 15103 | 18.8 | 20.6 | 60.6 | 9660 |
| | G&S | 45.9 | 18.7 | 35.4 | 5281 | 80.7 | 19.3 | | 45174 | 35.1 | 39.1 | 25.8 | 36330 |
| 1965 | CA | 14.4 | 42.2 | 43.4 | 2430 | 45.4 | 54.6 | | 29351 | 16.8 | 19.7 | 63.5 | 20280 |
| | G&S | 33.8 | 30.1 | 36.1 | 8358 | 79.4 | 20.6 | | 66631 | 37.7 | 37.5 | 24.8 | 61010 |
| 1971 | CA | 13.9 | 44.4 | 41.7 | 3714 | 42.6 | 57.4 | | 43284 | 18.4 | 20.2 | 61.4 | 28210 ^{b)} |
| | G&S | 27.0 | 38.7 | 34.3 | 18387 | 79.8 | 20.2 | | 109997 | 31.2 | 41.8 | 27.0 | 90440 ^{b)} |

a) 1937, b) 1970

Table 12: continued

| Country Year | SWITZERLAND | | | | UNITED KINGDOM | | | UNITED STATES | | | | |
|-----------------|-------------|------|------|-------|----------------|------|-------|---------------|------|------|-------|---------------------|
| | F | S | L | Total | F | L | Total | F | S | L | Total | |
| 1950 | CA | . | . | . | . | 4.7 | 95.3 | 120 | n.a. | . | . | . |
| | G&S | . | . | . | . | 40.7 | 59.3 | 456 | n.a. | . | . | . |
| 1958 | CA | . | . | . | . | 25.5 | 74.5 | 219 | n.a. | . | . | . |
| | G&S | . | . | . | . | 61.1 | 38.9 | 823 | n.a. | . | . | . |
| 1950 | CA | . | . | . | . | 7.6 | 92.4 | 437 | 63.7 | 18.9 | 17.4 | 27388 ^{a)} |
| | G&S | . | . | . | . | 72.1 | 27.9 | 2071 | 70.1 | 5.0 | 24.9 | 63597 ^{a)} |
| 1960 | CA | . | . | . | . | 29.3 | 70.7 | 873 | 52.7 | 20.7 | 26.6 | 31946 |
| | G&S | . | . | . | . | 67.7 | 32.3 | 4200 | 55.5 | 11.7 | 32.8 | 81655 |
| 1965 | CA | 5.9 | 55.7 | 38.4 | 2605 | 20.0 | 80.0 | 1507 | 50.3 | 22.4 | 27.3 | 41608 |
| | G&S | 27.2 | 36.2 | 36.6 | 7133 | 63.4 | 36.6 | 5970 | 55.4 | 12.3 | 32.3 | 120915 |
| 1971 | CA | 6.9 | 46.8 | 46.3 | 5675 | 23.0 | 77.0 | 2609 | 32.1 | 30.2 | 37.7 | 48824 |
| | G&S | 25.4 | 40.6 | 34.0 | 11445 | 58.8 | 41.2 | 10226 | 47.9 | 16.7 | 35.4 | 214713 |

a) 1952

- *) CA = Expenditure on Capital Account
 G&S = Expenditure on current Goods and Services } as a percent of Total
 Total = All governments respective expenditures (in 10⁶)

Sources: see Table 9

Note to Table 11:

Government exhaustive expenditures are outlays for currently produced goods and services. They include extra-budgetary expenditures on goods and services by agencies not treated as government business enterprises, for example, the national and state broadcasting corporations. Sales of goods and services by governments are set against expenditures in order to avoid double counting in the GNP.

Transfers are payments involving no quid pro quo that are made to persons. Interest on the public debt is treated as a transfer payment.

Subsidies are similar payments made to intermediaries, i.e. business firms.

Sources: See footnotes Table 9

Note to Table 12:

Government expenditure on Capital Account includes (i) government-built non rental housing, (ii) state and local school and hospital construction, and (iii) outlays made directly by government departments. Not included in capital formation are repair and maintenance expenditures. Defence expenditure on construction is included as fixed capital formation; outlays on equipment for the Department of National Defence are excluded.

Expenditure on current goods and services are calculated as residuals by subtracting the capital series from the exhaustive expenditure series in Table 11. This procedure is the same as that used to calculate current expenditures in the national accounts.

Sources: See footnotes Table 9.

Table 13: ALL GOVERNMENTS EXPENDITURE BY FUNCTION AND LEVEL OF GOVERNMENT, 1971*)

| Country Function | CANADA ^{a)} | | | | | FRANCE | | | | | GERMANY | | | | |
|----------------------------|----------------------|------|------|-------|-----------------|-------------------|------|---|--------|-----------------|---------|------|------|--------|-----------------|
| | F | S | L | Total | % ¹⁾ | F | S | L | Total | % ¹⁾ | F | S | L | Total | % ¹⁾ |
| Nat. Defence & Int. Relat. | 100.0 | -- | -- | 1946 | 8.2 | 100.0 | -- | | 43687 | 17.1 | 99.9 | 0.1 | -- | 28036 | 12.1 |
| Publ. Welfare & Health | 55.6 | 41.1 | 3.3 | 7243 | 30.4 | 31.1 | 8.3 | | 103853 | 40.5 | 54.0 | 18.4 | 27.6 | 57845 | 25.1 |
| Education | 12.3 | 43.0 | 44.8 | 4807 | 20.2 | 34.5 | 5.5 | | 40160 | 15.7 | 12.5 | 64.0 | 23.5 | 37315 | 16.2 |
| Transport & Communic. | 25.3 | 55.7 | 18.9 | 2341 | 9.8 | 81.8 | 18.2 | | 3048 | 3.5 | 44.0 | 25.6 | 30.4 | 19851 | 8.6 |
| Natur. Rec. & Prim. Indus. | 63.7 | 36.3 | -- | 1084 | 4.6 | 76.3 | 23.7 | | 11472 | 4.5 | 40.6 | 20.8 | 38.6 | 30359 | 13.2 |
| Housing & Urb. Renew. | Included in Other | | | | | 78.2 | 21.8 | | 6436 | 2.5 | 10.8 | 49.1 | 40.1 | 4800 | 2.1 |
| General Government | 52.3 | 24.6 | 23.1 | 1355 | 5.7 | 60.8 | 33.2 | | 27875 | 10.3 | 22.2 | 38.3 | 39.5 | 12991 | 5.6 |
| Protection | 22.5 | 35.4 | 42.1 | 1089 | 4.6 | 32.8 | 7.2 | | 7739 | 3.0 | 6.2 | 77.5 | 16.3 | 9285 | 4.0 |
| Debt Charges | 60.4 | 22.0 | 17.6 | 1778 | 7.5 | Included in Other | | | | | 39.2 | 26.7 | 34.1 | 8236 | 3.6 |
| Other | 66.0 | 21.5 | 12.5 | 2162 | 9.1 | 89.9 | 10.1 | | 5391 | 2.3 | 39.1 | 53.3 | 7.6 | 22094 | 9.6 |
| TOTAL | 47.5 | 34.9 | 17.6 | 23805 | 100.0 | 88.6 | 11.4 | | 256381 | 100.0 | 43.7 | 32.2 | 24.0 | 230812 | 100.0 |

a) 1968

Table 13: continued

| Country Function | SWITZERLAND | | | | | UNITED KINGDOM | | | | UNITED STATES | | | | |
|----------------------------|-------------------|------|------|-------|-----------------|----------------|------|-------|-----------------|---------------|------|------|--------|-----------------|
| | F | S | L | Total | % ¹⁾ | F | L | Total | % ¹⁾ | F | S | L | Total | % ¹⁾ |
| Defence & Int.Relat. | 90.6 | 6.1 | 3.2 | 2857 | 11.8 | 100.0 | -- | 3028 | 14.0 | 100.0 | -- | -- | 80910 | 22.4 |
| Publ.Welfare & Health | 32.2 | 48.3 | 19.5 | 5037 | 20.8 | 84.4 | 15.6 | 8160 | 37.6 | 31.2 | 42.6 | 26.2 | 52651 | 14.6 |
| Education | 15.0 | 45.9 | 39.0 | 5358 | 22.1 | 18.1 | 81.9 | 3224 | 14.9 | 12.7 | 38.9 | 48.4 | 90170 | 24.9 |
| Transport & Communic. | 42.7 | 30.5 | 26.8 | 3624 | 15.0 | 40.1 | 59.9 | 1074 | 5.0 | 20.4 | 57.1 | 22.5 | 25920 | 7.2 |
| Natur.Rec.& Fris.Indes. | 44.9 | 21.0 | 34.1 | 2376 | 9.8 | 81.1 | 18.9 | 747 | 3.4 | 78.1 | 17.7 | 4.2 | 14374 | 4.0 |
| Housing & Urb.Renew. | Included in Other | | | | | 24.7 | 75.3 | 999 | 4.6 | 56.6 | 2.8 | 40.6 | 6222 | 1.7 |
| General Government | 22.3 | 35.7 | 42.0 | 1816 | 7.5 | 49.3 | 50.7 | 616 | 2.8 | 40.3 | 27.6 | 32.1 | 7200 | 1.0 |
| Protection | 11.3 | 57.4 | 31.3 | 1232 | 5.1 | 20.5 | 79.5 | 682 | 3.1 | 5.9 | 22.6 | 71.5 | 8000 | 2.2 |
| Labur- Charges | 19.6 | 30.9 | 49.4 | 1366 | 5.6 | 55.6 | 44.4 | 2487 | 11.5 | 76.6 | 8.1 | 15.3 | 21688 | 6.0 |
| Other | 48.1 | 7.8 | 51.0 | 526 | 2.2 | 87.3 | 12.7 | 687 | 3.2 | 53.3 | 15.6 | 31.1 | 54702 | 15.1 |
| TOTAL | 35.9 | 35.0 | 29.1 | 24230 | 100.0 | 65.0 | 35.0 | 21704 | 100.0 | 49.2 | 24.6 | 26.2 | 361837 | 100.0 |

%¹⁾ = Percent distribution of all governments total expenditure (TOTAL) by function of expenditure

*) Sources: see Table 15

Note: The terms used for functional breakdown in this table are the following:

National Defence and International Relations seems clear without major elaboration, but it should be mentioned that International Co-operation and Assistance is also included.

Public Welfare and Health comprises, firstly, aid to aged, blind, unemployed and unemployable persons, mothers' allowances, child welfare and other miscellaneous welfare payments, as well as the veterans' pensions and benefits; secondly, it comprises general and public health, medical and dental services, and hospital care.

Education comprises expenditure on schools, universities, and special schools.

Transport and Communication comprises expenditures on airways, highways, railways, waterways, telephone, telegraph, and radio.

Natural Resources and Primary Industries comprises expenditures on fish and game, forests, land settlement and agriculture, minerals and mines, and water resources.

Housing and Urban Renewal comprises low- and moderate-income housing aids, and maintenance of the housing mortgage market.

General Government comprises executive, administrative, and legislative expenditures as well as expenditures on research, planning and statistics.

Protection comprises law enforcement, corrections, police and fire protection.

Debt changes comprises interest, commissions and discounts.

Other comprises such items which are hard to classify within the above groups (e.g. winter works).

Sources: See footnotes Table 15.

Table 14: DISTRIBUTION OF GOVERNMENT EXPENDITURE BY LEVEL OF GOVERNMENT AND FUNCTION, 1971*)

| Country \ Function | CANADA ^{a)} | | | FRANCE | | | GERMANY | | | SWITZERLAND | | | UNITED KINGDOM | | UNITED STATES | | |
|----------------------------|----------------------|------|------|-------------------|-------|---|---------|-------|-------|-------------------|------|------|----------------|------|---------------|-------|-------|
| | F | S | L | F | S | L | F | S | L | F | S | L | F | L | F | S | L |
| Nat. Defence & Int. Relat. | 17.2 | — | — | 19.2 | — | — | 27.8 | — | — | 29.8 | 2.1 | 1.3 | 21.3 | — | 45.4 | — | — |
| Publ. Welfare & Health | 35.6 | 35.8 | 5.7 | 41.7 | 31.5 | — | 31.0 | 14.3 | 28.7 | 18.7 | 28.7 | 13.9 | 48.5 | 17.0 | 9.2 | 25.2 | 14.6 |
| Education | 5.2 | 24.8 | 51.4 | 16.7 | 7.6 | — | 4.6 | 32.1 | 15.8 | 9.3 | 29.0 | 29.7 | 4.1 | 35.2 | 6.4 | 39.4 | 46.0 |
| Transport & Communic. | 5.2 | 15.7 | 10.6 | 3.3 | 5.6 | — | 8.7 | 6.8 | 10.9 | 17.8 | 13.0 | 13.8 | 3.0 | 8.6 | 3.0 | 16.6 | 6.1 |
| Natur. Rec. & Prim. Indus. | 6.1 | 4.7 | — | 3.9 | 9.2 | — | 12.2 | 8.5 | 21.1 | 12.2 | 5.9 | 11.5 | 4.3 | 1.9 | 6.3 | 2.9 | 0.6 |
| Housing & Urb. Renew. | In Other included | | | 2.2 | 4.8 | — | 0.5 | 3.2 | 3.5 | In Other included | | | 1.7 | 10.0 | 2.0 | 0.2 | 2.7 |
| General Government | 6.3 | 4.0 | 7.5 | 7.5 | 37.3 | — | 2.9 | 6.7 | 9.2 | 4.7 | 7.6 | 10.8 | 2.1 | 4.2 | 1.6 | 2.2 | 2.4 |
| Protection | 2.2 | 4.6 | 10.9 | 3.2 | 1.9 | — | 0.6 | 9.7 | 2.7 | 1.6 | 8.3 | 5.5 | 1.0 | 7.2 | 0.3 | 2.0 | 6.0 |
| Dept Charges | 9.5 | 4.7 | 7.5 | In Other included | | | 3.2 | 3.0 | 5.1 | 3.1 | 5.0 | 9.6 | 9.7 | 14.7 | 9.3 | 2.0 | 3.5 |
| Other | 12.6 | 5.6 | 6.4 | 2.3 | 2.1 | — | 8.6 | 15.8 | 3.0 | 2.9 | 0.2 | 0.2 | 4.2 | 1.2 | 16.4 | 9.5 | 18.0 |
| TOTAL = 100% | 11300 | 8313 | 4191 | 227029 | 29352 | — | 100869 | 74442 | 55501 | 8699 | 8490 | 7041 | 14212 | 7492 | 177922 | 89118 | 94797 |

a) 1968

*) Notes and Sources: see Tables 13 and 15

Table 15: DISTRIBUTION OF ALL GOVERNMENTS EXPENDITURE BY FUNCTION AND LEVEL OF GOVERNMENT, 1956 - 1971*)

| Country Function and Year | | CANADA | | | | | | | FRANCE | | | | |
|---|------|-------------------|----------------|----------------|----------------|----------------|----------------|--------------------|----------------|----------------|------------------|------------------|---------------------|
| | | F | | S | | L | | Total | F | | S & L | | Total |
| | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S&L ₁ | S&L ₂ | |
| National | 1956 | 100.0 | 38.9 | — | — | — | — | 1855 | . | . | . | . | . |
| Defence & | 1961 | 100.0 | 26.4 | — | — | — | — | 1716 | . | . | . | . | . |
| Internat. | 1966 | 100.0 | 20.9 | — | — | — | — | 1698 ^{a)} | 100.0 | 18.3 | — | — | 23464 ^{q)} |
| Relations | 1971 | 100.0 | 17.2 | — | — | — | — | 1946 ^{b)} | 100.0 | 19.2 | — | — | 43687 |
| Public | 1956 | 70.6 | 25.6 | 23.4 | 23.3 | 6.0 | 7.9 | 1727 | . | . | . | . | . |
| Welfare | 1961 | 68.4 | 32.8 | 28.1 | 28.8 | 3.5 | 4.8 | 3109 | . | . | . | . | . |
| & | 1966 | 62.4 | 33.8 | 34.7 | 30.0 | 2.9 | 4.2 | 4399 ^{a)} | 91.5 | 42.4 | 8.5 | 33.2 | 59402 ^{q)} |
| Health | 1971 | 55.6 | 35.6 | 41.1 | 35.8 | 3.3 | 5.7 | 7243 ^{b)} | 91.1 | 41.7 | 8.9 | 31.5 | 103853 |
| Education | 1956 | 4.6 | 0.8 | 43.0 | 20.9 | 52.4 | 33.5 | 841 | . | . | . | . | . |
| | 1961 | 5.2 | 1.4 | 46.2 | 27.7 | 48.6 | 39.0 | 1821 | . | . | . | . | . |
| | 1966 | 10.3 | 3.7 | 51.9 | 29.1 | 37.8 | 35.6 | 2860 ^{a)} | 93.8 | 13.8 | 6.2 | 7.8 | 18731 ^{q)} |
| | 1971 | 12.3 | 5.2 | 43.0 | 24.8 | 44.8 | 51.4 | 4807 ^{b)} | 94.5 | 16.7 | 5.5 | 7.6 | 40160 |
| Transport & Communicat. | 1956 | 21.5 | 4.5 | 55.9 | 32.4 | 22.6 | 17.2 | 1003 | . | . | . | . | . |
| | 1961 | 30.0 | 6.6 | 45.9 | 21.7 | 24.1 | 15.2 | 1435 | . | . | . | . | . |
| | 1966 | 29.4 | 7.4 | 49.2 | 19.7 | 21.4 | 14.4 | 2035 ^{a)} | 87.8 | 5.1 | 12.2 | 6.0 | 7512 ^{a)} |
| | 1971 | 25.3 | 5.2 | 55.7 | 15.7 | 18.9 | 10.6 | 2341 ^{b)} | 81.8 | 3.3 | 18.2 | 5.6 | 9048 |
| Natural Resources & Primary Industries | 1956 | 54.2 | 3.3 | 45.8 | 7.6 | — | — | 288 | . | . | . | . | . |
| | 1961 | 66.6 | 6.2 | 33.3 | 6.6 | — | — | 605 | . | . | . | . | . |
| | 1966 | 60.0 | 5.5 | 39.4 | 5.7 | — | — | 733 ^{a)} | 84.5 | 4.4 | 15.5 | 6.8 | 6648 ^{a)} |
| | 1971 | 63.7 | 6.1 | 36.3 | 4.7 | — | — | 1084 ^{b)} | 76.3 | 3.9 | 23.7 | 9.2 | 11472 |
| Housing & Urban Renewal | 1956 | Included in Other | | | | | | | . | . | . | . | . |
| | 1961 | Included in Other | | | | | | | . | . | . | . | . |
| | 1966 | Included in Other | | | | | | | 72.9 | 1.6 | 27.1 | 5.2 | 2900 ^{q)} |
| | 1971 | Included in Other | | | | | | | 78.2 | 2.2 | 21.8 | 4.8 | 6496 |
| General Government | 1956 | 64.9 | 6.6 | 14.4 | 4.0 | 20.7 | 7.7 | 487 | . | . | . | . | . |
| | 1961 | 50.3 | 4.4 | 23.6 | 4.4 | 26.1 | 6.6 | 571 | . | . | . | . | . |
| | 1966 | 44.1 | 4.2 | 27.5 | 4.2 | 28.4 | 7.2 | 771 ^{a)} | 67.2 | 8.7 | 32.8 | 36.1 | 16643 ^{a)} |
| | 1971 | 52.3 | 6.3 | 24.6 | 4.0 | 23.1 | 7.5 | 1355 ^{b)} | 60.8 | 7.5 | 33.2 | 37.3 | 27875 |

Table 15: continued

| Country Function and Year | | CANADA | | | | | | | FRANCE | | | | |
|---------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------|-------------------|----------------|------------------|------------------|----------------------|
| | | F | | S | | L | | Total | F | | S & L | | Total |
| | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S&L ₁ | S&L ₂ | |
| Protection | 1956 | 19.7 | 1.3 | 30.0 | 5.3 | 50.5 | 11.9 | 309 | . | . | . | . | . |
| | 1961 | 18.1 | 1.4 | 29.0 | 4.6 | 53.0 | 11.4 | 487 | . | . | . | . | . |
| | 1966 | 21.9 | 2.1 | 30.4 | 4.4 | 47.7 | 11.7 | 744 ^{a)} | 31.3 | 2.8 | 8.7 | 2.3 | 3942 ^{a)} |
| | 1971 | 22.5 | 2.2 | 35.4 | 4.6 | 42.1 | 10.9 | 1089 ^{b)} | 32.8 | 3.2 | 7.2 | 1.5 | 7793 |
| Dept Charges | 1956 | 79.4 | 9.9 | 9.3 | 3.2 | 11.3 | 5.1 | 593 | Included in Other | | | | |
| | 1961 | 78.4 | 10.6 | 9.6 | 2.8 | 12.1 | 4.7 | 879 | | | | | |
| | 1966 | 71.3 | 11.1 | 11.0 | 2.7 | 17.7 | 7.3 | 1258 ^{a)} | | | | | |
| | 1971 | 60.4 | 9.5 | 22.0 | 4.7 | 17.6 | 7.5 | 1778 ^{b)} | | | | | |
| Other | 1956 | 61.0 | 9.0 | 7.7 | 3.1 | 31.3 | 16.8 | 705 | . | . | . | . | . |
| | 1961 | 55.9 | 10.1 | 8.5 | 3.3 | 35.5 | 18.3 | 1171 | . | . | . | . | . |
| | 1966 | 53.3 | 11.4 | 12.4 | 4.2 | 34.2 | 19.5 | 1732 ^{a)} | 30.3 | 2.9 | 9.7 | 2.6 | 4122 ^{a)} |
| | 1971 | 66.0 | 12.6 | 21.5 | 5.6 | 12.5 | 6.4 | 2162 ^{b)} | 39.9 | 2.3 | 10.1 | 2.1 | 5991 |
| TOTAL (in % of Total) | 1956 | 61.0 | | 22.5 | | 16.8 | | 7808 | . | . | . | . | . |
| | 1961 | 55.0 | | 25.8 | | 19.2 | | 11794 | . | . | . | . | . |
| | 1966 | 49.9 | | 31.4 | | 18.7 | | 16230 ^{a)} | 39.4 | | 10.6 | | 143364 ^{c)} |
| | 1971 | 47.5 | | 34.9 | | 17.6 | | 23805 ^{b)} | 32.6 | | 11.4 | | 256381 |

^{a)} F₁, S₁, L₁ = Percent distribution of the total expenditure for each function by level of government.

F₂, S₂, L₂ = Percent distribution of the total expenditure of each level of government by function.

a) 1965
b) 1968

Table 15: DISTRIBUTION OF ALL GOVERNMENTS EXPENDITURE BY FUNCTION AND LEVEL OF GOVERNMENT, 1956 - 1971*)

| Country Function and Year | | GERMANY | | | | | | | SWITZERLAND | | | | | | |
|---|------|----------------|----------------|----------------|----------------|----------------|----------------|-------|-------------------|----------------|----------------|----------------|----------------|----------------|--------------------|
| | | F | | S | | L | | Total | F | | S | | L | | Total |
| | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | |
| National | 1956 | 99.6 | 24.6 | 0.4 | 0.1 | — | — | 7378 | 98.6 | 40.0 | — | — | — | — | 797 ^{a)} |
| Defence & | 1961 | 100.0 | 27.2 | — | — | — | — | 13311 | 96.9 | 43.2 | 1.7 | 0.8 | 1.3 | 0.8 | 1084 ^{b)} |
| Internat. | 1966 | 100.0 | 27.6 | — | — | — | — | 20209 | 96.7 | 34.8 | — | — | — | — | 1783 ^{c)} |
| Relations | 1971 | 99.9 | 27.8 | 0.1 | — | — | — | 28036 | 90.6 | 29.8 | 6.1 | 2.1 | 3.2 | 1.3 | 2857 |
| Public | 1956 | 66.6 | 43.2 | 17.8 | 19.5 | 15.6 | 24.3 | 19356 | 28.5 | 14.7 | . | . | . | . | 1014 ^{a)} |
| Welfare | 1961 | 65.6 | 37.4 | 17.3 | 17.8 | 17.2 | 22.3 | 28136 | 26.0 | 13.4 | 47.4 | 26.8 | 26.6 | 20.5 | 1303 ^{b)} |
| & | 1966 | 62.1 | 32.0 | 17.0 | 13.3 | 20.9 | 23.7 | 37738 | 26.8 | 14.0 | . | . | . | . | 2428 ^{c)} |
| Health | 1971 | 54.0 | 31.0 | 18.4 | 14.3 | 27.6 | 28.7 | 57845 | 32.2 | 18.7 | 48.3 | 28.7 | 19.5 | 13.9 | 5037 |
| Education | 1956 | 5.0 | 0.7 | 62.4 | 42.8 | 34.6 | 19.5 | 7001 | 7.2 | 3.1 | . | . | . | . | 847 ^{a)} |
| | 1961 | 14.8 | 4.0 | 56.1 | 26.7 | 29.0 | 17.5 | 13081 | 9.8 | 5.2 | 50.5 | 28.5 | 39.7 | 30.5 | 1303 ^{b)} |
| | 1966 | 9.4 | 2.4 | 62.3 | 24.5 | 28.3 | 16.1 | 18957 | 12.0 | 5.6 | . | . | . | . | 2337 ^{c)} |
| | 1971 | 12.5 | 4.6 | 64.0 | 32.1 | 23.5 | 15.8 | 37315 | 15.0 | 9.3 | 45.9 | 29.0 | 39.0 | 29.7 | 5356 |
| Transport & Communicat. | 1956 | 28.9 | 3.8 | 30.6 | 6.7 | 40.5 | 12.6 | 3854 | 19.7 | 4.9 | . | . | . | . | 488 ^{a)} |
| | 1961 | 33.2 | 5.1 | 26.9 | 7.4 | 39.9 | 13.9 | 7567 | 21.5 | 6.4 | 42.5 | 13.7 | 36.0 | 15.9 | 745 ^{b)} |
| | 1966 | 36.4 | 5.7 | 31.6 | 7.6 | 31.8 | 11.0 | 11459 | 43.3 | 19.3 | . | . | . | . | 2211 ^{c)} |
| | 1971 | 44.0 | 8.7 | 25.6 | 6.8 | 30.4 | 10.9 | 19851 | 42.7 | 17.8 | 30.5 | 13.0 | 26.8 | 13.8 | 3624 |
| Natural Resources & Primary Industries | 1956 | 59.7 | 8.4 | 34.4 | 8.2 | 5.9 | 2.0 | 4214 | 59.7 | 12.1 | . | . | . | . | 398 ^{a)} |
| | 1961 | 44.8 | 11.3 | 23.2 | 10.6 | 32.0 | 18.4 | 12505 | 65.2 | 15.1 | 24.5 | 6.1 | 10.2 | 3.5 | 576 ^{b)} |
| | 1966 | 43.5 | 14.1 | 23.6 | 11.6 | 32.9 | 23.4 | 23700 | 54.3 | 19.3 | . | . | . | . | 1148 ^{c)} |
| | 1971 | 40.6 | 12.2 | 20.8 | 8.5 | 38.6 | 21.1 | 30359 | 44.9 | 12.2 | 21.0 | 5.9 | 34.1 | 11.5 | 2376 |
| Housing & Urban Renewal | 1956 | 44.7 | 7.0 | 36.2 | 9.6 | 19.1 | 7.2 | 4678 | Included in Other | | | | | | |
| | 1961 | 36.3 | 3.8 | 47.6 | 9.2 | 16.1 | 3.9 | 5301 | | | | | | | |
| | 1966 | 22.5 | 1.6 | 61.3 | 6.6 | 16.2 | 2.5 | 5206 | | | | | | | |
| | 1971 | 10.8 | 0.5 | 49.1 | 3.2 | 40.1 | 3.5 | 4800 | | | | | | | |
| General Government | 1956 | 26.2 | 3.3 | 39.9 | 8.6 | 33.9 | 10.4 | 3812 | 16.2 | 4.1 | . | . | . | . | 494 ^{a)} |
| | 1961 | 23.1 | 3.2 | 37.5 | 9.2 | 39.4 | 12.4 | 6752 | 20.9 | 4.3 | 36.0 | 7.9 | 43.1 | 12.9 | 507 ^{b)} |
| | 1966 | 20.2 | 2.6 | 38.8 | 7.6 | 41.0 | 11.6 | 9432 | 14.9 | 3.4 | . | . | . | . | 1144 ^{c)} |
| | 1971 | 22.2 | 2.9 | 38.3 | 6.7 | 39.5 | 9.2 | 12991 | 22.3 | 4.7 | 35.7 | 7.6 | 42.0 | 10.8 | 1816 |

Table 15: continued

| Country Function and Year | | GERMANY | | | | | | | SWITZERLAND | | | | | | |
|---------------------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|--------|----------------|----------------|----------------|----------------|----------------|----------------|---------------------|
| | | F | | S | | L | | Total | F | | S | | L | | Total |
| | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | |
| Protection | 1956 | 4.8 | 0.5 | 81.3 | 12.9 | 13.9 | 3.1 | 2791 | 9.6 | 1.3 | . | . | . | . | 274 ^{a)} |
| | 1961 | 7.2 | 0.6 | 79.3 | 11.8 | 13.5 | 2.5 | 4098 | 18.7 | 3.3 | 57.5 | 10.8 | 23.8 | 6.1 | 432 ^{b)} |
| | 1966 | 7.0 | 0.5 | 81.5 | 9.1 | 11.5 | 1.8 | 5326 | 10.1 | 1.3 | . | . | . | . | 645 ^{c)} |
| | 1971 | 6.2 | 0.6 | 77.5 | 9.7 | 16.3 | 2.7 | 9285 | 11.3 | 1.6 | 57.4 | 8.3 | 31.3 | 5.5 | 1232 |
| Charges | 1956 | 58.1 | 5.1 | 41.5 | 6.2 | 0.4 | 0.1 | 2618 | 58.5 | 13.0 | . | . | . | . | 435 ^{a)} |
| | 1961 | 57.6 | 3.8 | 42.2 | 5.0 | 0.2 | . | 3265 | 43.9 | 8.8 | 24.2 | 5.2 | 31.9 | 9.4 | 498 ^{b)} |
| | 1966 | 40.0 | 4.8 | 23.0 | 4.2 | 37.0 | 9.8 | 8830 | 31.1 | 4.2 | . | . | . | . | 675 ^{c)} |
| | 1971 | 39.2 | 3.2 | 26.7 | 3.0 | 34.1 | 5.1 | 8236 | 19.6 | 3.1 | 30.9 | 5.0 | 49.4 | 9.6 | 1366 |
| Other | 1956 | 23.9 | 3.4 | 14.4 | 3.4 | 61.6 | 20.8 | 4211 | . | . | . | . | . | . | . |
| | 1961 | 40.8 | 3.6 | 14.1 | 2.3 | 45.1 | 9.1 | 4389 | 74.7 | 1.0 | . | . | 25.6 | 0.5 | 32 ^{b)} |
| | 1966 | 44.6 | 8.6 | 52.1 | 15.4 | 3.4 | 1.4 | 14217 | . | . | . | . | . | . | . |
| | 1971 | 39.1 | 8.6 | 53.3 | 15.8 | 7.6 | 3.0 | 22094 | 48.1 | 2.9 | 7.8 | 0.2 | 51.0 | 0.2 | 526 |
| TOTAL (in % of Total) | 1956 | 49.8 | | 29.4 | | 20.8 | | 59913 | 41.5 | | . | | . | | 4731 ^{a)} |
| | 1961 | 50.0 | | 27.9 | | 22.1 | | 98408 | 38.3 | | 35.6 | | 26.1 | | 6479 ^{b)} |
| | 1966 | 47.4 | | 31.1 | | 21.5 | | 154668 | 40.1 | | . | | . | | 12373 ^{c)} |
| | 1971 | 43.7 | | 32.2 | | 24.0 | | 230812 | 35.9 | | 35.0 | | 29.1 | | 24230 |

^{a)} F₁, S₁, L₁ = Percent distribution of the total expenditure for each function by level of government.

F₂, S₂, L₂ = Percent distribution of the total expenditure of each level of government by function.

- a) 1955
- b) 1960
- c) 1965

Table 15: DISTRIBUTION OF ALL GOVERNMENTS EXPENDITURE BY FUNCTION AND LEVEL OF GOVERNMENT, 1956 - 1971*)

| Country Function and Year | | UNITED KINGDOM | | | | | UNITED STATES | | | | | | |
|---------------------------------|------|----------------|----------------|----------------|----------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|
| | | F | | L | | Total | F | | S | | L | | Total |
| | | F ₁ | F ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | |
| National | 1956 | 100.0 | 29.7 | — | — | 1683 ^{a)} | 100.0 | 64.8 | — | — | — | — | 42680 |
| Defence & | 1961 | 100.0 | 28.5 | — | — | 1878 | 100.0 | 59.6 | — | — | — | — | 49387 |
| Internat. | 1966 | 100.0 | 26.9 | — | — | 2433 | 100.0 | 64.4 | — | — | — | — | 60832 |
| Relations | 1971 | 100.0 | 21.3 | — | — | 3028 | 100.0 | 45.5 | — | — | — | — | 80910 |
| Public | 1956 | 86.5 | 40.2 | 13.5 | 16.4 | 2636 ^{a)} | 14.6 | 1.5 | 44.4 | 25.0 | 41.0 | 11.6 | 6924 |
| Welfare | 1961 | 85.5 | 38.7 | 14.5 | 16.5 | 2975 | 15.8 | 2.0 | 41.8 | 23.0 | 42.4 | 11.9 | 10460 |
| & | 1966 | 84.7 | 43.7 | 15.3 | 15.6 | 4668 | 17.4 | 2.8 | 60.4 | 18.1 | 22.2 | 7.8 | 15327 |
| Health | 1971 | 84.4 | 48.5 | 15.6 | 17.0 | 8160 | 31.2 | 9.2 | 42.6 | 25.2 | 26.2 | 14.6 | 52651 |
| | 1956 | 16.5 | 2.7 | 83.5 | 35.6 | 929 ^{a)} | 6.6 | 1.4 | 15.1 | 17.4 | 78.3 | 45.4 | 14161 |
| Education | 1961 | 18.2 | 3.1 | 81.8 | 35.2 | 1123 | 3.0 | 0.8 | 17.9 | 20.0 | 79.1 | 45.2 | 21214 |
| | 1966 | 20.0 | 4.2 | 80.0 | 32.9 | 1891 | 4.5 | 1.6 | 50.9 | 34.8 | 44.6 | 35.4 | 34837 |
| | 1971 | 18.1 | 4.1 | 81.9 | 35.2 | 3224 | 12.7 | 6.4 | 38.9 | 39.4 | 48.4 | 46.0 | 90170 |
| Transport | 1956 | 29.4 | 1.5 | 70.6 | 9.1 | 282 ^{a)} | 1.2 | 0.1 | 62.1 | 35.4 | 36.7 | 10.6 | 7035 |
| & | 1961 | 48.4 | 3.5 | 51.6 | 9.4 | 475 | 1.5 | 0.2 | 62.3 | 32.7 | 36.2 | 9.7 | 9995 |
| Communicat. | 1966 | 44.7 | 3.6 | 55.3 | 8.8 | 727 | 1.0 | 0.1 | 80.2 | 20.3 | 18.8 | 5.5 | 12695 |
| | 1971 | 40.1 | 3.0 | 59.9 | 8.6 | 1074 | 20.4 | 3.0 | 57.1 | 16.6 | 22.5 | 6.1 | 25920 |
| Natural | 1956 | 84.1 | 5.3 | 15.9 | 2.6 | 359 ^{a)} | 88.4 | 10.5 | 8.6 | 5.4 | 3.0 | 1.0 | 7810 |
| Resources & | 1961 | 85.4 | 5.8 | 14.6 | 2.5 | 444 | 88.4 | 12.2 | 7.9 | 4.8 | 3.7 | 1.1 | 11409 |
| Primary | 1966 | 78.9 | 3.7 | 21.1 | 1.9 | 421 | 80.2 | 8.7 | 15.2 | 3.1 | 4.6 | 1.1 | 10301 |
| Industries | 1971 | 81.1 | 4.3 | 18.9 | 1.9 | 747 | 78.1 | 6.3 | 17.7 | 2.9 | 4.2 | 0.6 | 14374 |
| Housing | 1956 | 23.4 | 1.5 | 76.6 | 12.9 | 367 ^{a)} | 22.2 | 0.2 | . | . | 77.8 | 1.8 | 598 |
| & | 1961 | 22.4 | 1.4 | 77.6 | 12.1 | 406 | 28.6 | 0.5 | 0.5 | — | 70.9 | 2.5 | 1320 |
| Urban | 1966 | 13.4 | 1.2 | 86.6 | 15.9 | 842 | 41.8 | 1.1 | 3.5 | 0.2 | 54.7 | 3.0 | 2415 |
| Renewal | 1971 | 24.7 | 1.7 | 75.3 | 10.0 | 999 | 56.6 | 2.0 | 2.8 | 0.2 | 40.6 | 2.7 | 6222 |
| General | 1956 | 78.2 | 2.0 | 21.8 | 1.4 | 142 ^{a)} | 30.2 | 1.0 | 21.3 | 3.9 | 48.5 | 4.4 | 2235 |
| Government | 1961 | 76.1 | 1.8 | 23.9 | 1.4 | 155 | 26.0 | 1.0 | 24.0 | 3.8 | 50.0 | 4.1 | 3025 |
| | 1966 | 46.1 | 1.7 | 53.9 | 3.9 | 336 | 27.5 | 1.3 | 25.3 | 2.0 | 47.2 | 4.4 | 4105 |
| | 1971 | 49.3 | 2.1 | 50.7 | 4.2 | 616 | 40.3 | 1.0 | 27.6 | 2.2 | 32.1 | 2.4 | 7200 |

Table 15: continued

| Country Function and Year | | UNITED KINGDOM | | | | | UNITED STATES | | | | | | |
|---------------------------------|------|----------------|----------------|----------------|----------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------|
| | | F | | L | | Total | F | | S | | L | | Total |
| | | F ₁ | F ₂ | L ₁ | L ₂ | | F ₁ | F ₂ | S ₁ | S ₂ | L ₁ | L ₂ | |
| Protection | 1956 | 18.7 | 0.6 | 81.3 | 6.8 | 182 ^{a)} | 7.1 | 0.2 | 7.1 | 1.3 | 85.8 | 7.8 | 2224 |
| | 1961 | 19.2 | 0.6 | 80.8 | 7.1 | 229 | 5.6 | 0.2 | 8.5 | 1.5 | 85.9 | 7.6 | 3297 |
| | 1966 | 17.5 | 0.7 | 82.5 | 6.5 | 360 | 6.1 | 0.3 | 20.2 | 1.7 | 73.7 | 7.4 | 4409 |
| | 1971 | 20.5 | 1.0 | 79.5 | 7.2 | 682 | 5.9 | 0.3 | 22.6 | 2.0 | 71.5 | 6.0 | 8000 |
| Debt Charges | 1956 | 75.0 | 13.9 | 25.0 | 12.0 | 1048 ^{a)} | 84.4 | 8.1 | 4.9 | 2.5 | 10.7 | 2.8 | 6297 |
| | 1961 | 73.0 | 13.7 | 27.0 | 12.8 | 1239 | 80.4 | 9.0 | 6.3 | 3.1 | 13.3 | 3.3 | 9309 |
| | 1966 | 63.4 | 11.5 | 36.6 | 13.1 | 1638 | 78.1 | 10.1 | 7.3 | 1.8 | 14.6 | 4.1 | 12278 |
| | 1971 | 55.6 | 9.7 | 44.4 | 14.7 | 2487 | 76.6 | 9.3 | 8.1 | 2.0 | 15.3 | 3.5 | 21688 |
| Other | 1956 | 69.8 | 2.7 | 30.2 | 3.1 | 222 ^{a)} | 63.2 | 12.3 | 8.9 | 9.1 | 27.9 | 14.6 | 12699 |
| | 1961 | 70.0 | 2.8 | 30.0 | 3.1 | 267 | 61.8 | 14.5 | 10.7 | 11.1 | 27.5 | 14.6 | 19741 |
| | 1966 | 79.8 | 2.8 | 20.2 | 1.4 | 317 | 28.3 | 9.6 | 28.8 | 18.0 | 42.9 | 31.3 | 32007 |
| | 1971 | 87.3 | 4.2 | 12.7 | 1.2 | 687 | 53.3 | 16.4 | 15.6 | 9.5 | 31.1 | 15.0 | 54702 |
| TOTAL (in % of Total) | 1956 | 72.3 | | 27.7 | | 7850 ^{a)} | 64.2 | | 12.0 | | 23.8 | | 102627 |
| | 1961 | 71.6 | | 28.4 | | 9191 | 59.6 | | 13.7 | | 26.7 | | 142157 |
| | 1966 | 66.3 | | 33.7 | | 13633 | 49.9 | | 26.6 | | 23.2 | | 189405 |
| | 1971 | 65.0 | | 35.0 | | 21704 | 49.2 | | 24.6 | | 26.2 | | 361537 |

^{a)} F₁, S₁, L₁ = Percent distribution of the total expenditure for each function by level of government.

F₂, S₂, L₂ = Percent distribution of the total expenditure of each level of government by function.

a) 1959

Note: The figures of Tables 13 - 15 base on public finance statistics, i.e., refer to the fiscal year which in generally does not end in December; moreover, the classification of expenditures in the public finance statistics is not identical with the classification used in the national accounts (there is also a somewhat other definition of 'government' in both statistics); thus, we will find some differences between both data sets (besides the different treatment of conditional intergovernmental transfers).

For detailed terms used for functional breakdown in the Tables 13 - 15 see note of Table 13.

Sources:

For Canada: Urquhart and Buckley (1965, p. 207); D.B.S., Financial Statistics of the Government of Canada, 1961; Federal Government Finance, 1965; Financial Statistics of Provincial Governments 1961; Provincial Government Finance, 1965; Financial Statistics of Municipal Governments, 1961; Municipal Government Finance, 1965; Consolidated Government Finance, 1968.

For France: Andre (1974, pp.1,4, 61, 64, 66-7, 74-6) and I.N.S.E.E., Annuaire Statistique de la France, various years.

For Germany: St.B., Statistisches Jahrbuch fuer die Bundesrepublik Deutschland, various years; St.B., Wirtschaft und Statistik, various years.

For Switzerland: E.St.A., Die Finanzen von Bund, Kantonen und Gemeinden 1933 - 1971; Oeffentliche Finanzen der Schweiz, various years; Finanzhaushalt der Kantone 1930 - 1971; Statistisches Jahrbuch der Schweiz, various years; expenditures for civil defence are included in national defence and international relations.

For United Kingdom: C.S.O., Annual Abstracts of Statistics, various years; Financial Statements and Budget Report, various years.

For the United States: U.S.B.o.C., Statistical Abstract of the United States, various years; Historical Statistics of the United States, Colonial Times to 1957; Historical Statistics of the United States, Continuation to 1962 and Revisions.

| Table 16: FORM OF PRODUCTION AND TYPE OF PRODUCT | | | | | | | | | | |
|--|---|---------------|------|-------|--------------|------|-------|-------|-------|-------|
| Country and Form of Pro- duction \ Type of Good | | CANADA, 1971 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 445 | | | 3273 | | | 3718 | | |
| | 2 | | 12.0 | | | 88.0 | | | 100.0 | |
| | 3 | | | 0.6 | | | 14.8 | | | 4.0 |
| Private Production | 4 | 70693 | | | 18896 | | | 89589 | | |
| | 5 | | 78.9 | | | 21.1 | | | 100.0 | |
| | 6 | | | 99.4 | | | 85.2 | | | 96.0 |
| Total Production | 7 | 71138 | | | 22169 | | | 93307 | | |
| | 8 | | 76.2 | | | 23.8 | | | 100.0 | |
| | 9 | | | 100.0 | | | 100.0 | | | 100.0 |

| Table 16: continued | | | | | | | | | | |
|--|---|---------------|------|-------|--------------|------|-------|--------|-------|-------|
| Country and Form of Pro- duction \ Type of Good | | FRANCE, 1971 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 8784 | | | 79334 | | | 88118 | | |
| | 2 | | 10.0 | | | 90.0 | | | 100.0 | |
| | 3 | | | 1.2 | | | 56.4 | | | 9.7 |
| Private Production | 4 | 754662 | | | 61382 | | | 816044 | | |
| | 5 | | 92.5 | | | 7.5 | | | 100.0 | |
| | 6 | | | 98.8 | | | 43.6 | | | 90.3 |
| Total Production | 7 | 763446 | | | 140716 | | | 904162 | | |
| | 8 | | 84.4 | | | 15.6 | | | 100.0 | |
| | 9 | | | 100.0 | | | 100.0 | | | 100.0 |

| Table 16: continued | | | | | | | | | | |
|--|---|---------------|------|-------|--------------|------|-------|--------|-------|-------|
| Country and Form of Pro- duction | | GERMANY, 1971 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 14240 | | | 74730 | | | 88970 | | |
| | 2 | | 16.0 | | | 84.0 | | | 100.0 | |
| | 3 | | | 3.0 | | | 26.8 | | | 11.8 |
| Private Production | 4 | 462750 | | | 204380 | | | 667130 | | |
| | 5 | | 69.4 | | | 30.6 | | | 100.0 | |
| | 6 | | | 97.0 | | | 73.2 | | | 88.2 |
| Total Production | 7 | 476990 | | | 279110 | | | 756100 | | |
| | 8 | | 63.1 | | | 36.9 | | | 100.0 | |
| | 9 | | | 100.0 | | | 100.0 | | | 100.0 |

| Table 16: continued | | | | | | | | | | |
|--|---|-------------------|------|-------|--------------|------|-------|-------|-------|-------|
| Country and Form of Pro- duction | | SWITZERLAND, 1969 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 1665 | | | 4283 | | | 5948 | | |
| | 2 | | 28.0 | | | 72.0 | | | 100.0 | |
| | 3 | | | 2.5 | | | 31.9 | | | 7.3 |
| Private Production | 4 | 65845 | | | 9137 | | | 74982 | | |
| | 5 | | 87.8 | | | 12.2 | | | 100.0 | |
| | 6 | | | 97.5 | | | 68.1 | | | 92.7 |
| Total Production | 7 | 67510 | | | 13420 | | | 80930 | | |
| | 8 | | 83.4 | | | 16.6 | | | 100.0 | |
| | 9 | | | 100.0 | | | 100.0 | | | 100.0 |

| Table 16: continued | | | | | | | | | | |
|--|---|----------------------|---|---|--------------|---|---|-------|---|---|
| Country and Form of Pro- duction | | UNITED KINGDOM, 1971 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 1649 | | | 10245 | | | 11894 | | |
| | 2 | 13.9 | | | 86.1 | | | 100.0 | | |
| | 3 | 4.7 | | | 50.5 | | | 21.4 | | |
| Private Production | 4 | 33590 | | | 10036 | | | 43626 | | |
| | 5 | 77.7 | | | 23.0 | | | 100.0 | | |
| | 6 | 95.3 | | | 49.5 | | | 78.6 | | |
| Total Production | 7 | 35239 | | | 20281 | | | 55520 | | |
| | 8 | 63.5 | | | 36.5 | | | 100.0 | | |
| | 9 | 100.0 | | | 100.0 | | | 100.0 | | |

| Table 16: continued | | | | | | | | | | |
|--|---|---------------------|---|---|--------------|---|---|---------|---|---|
| Country and Form of Pro- duction | | UNITED STATES, 1971 | | | | | | | | |
| | | Private Goods | | | Social Goods | | | Total | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Public Production | 1 | 13100 | | | 124800 | | | 137900 | | |
| | 2 | 9.5 | | | 90.5 | | | 100.0 | | |
| | 3 | 1.6 | | | 53.6 | | | 13.1 | | |
| Private Production | 4 | 804500 | | | 108000 | | | 912500 | | |
| | 5 | 88.2 | | | 11.8 | | | 100.0 | | |
| | 6 | 98.4 | | | 46.4 | | | 86.9 | | |
| Total Production | 7 | 817600 | | | 232800 | | | 1050400 | | |
| | 8 | 77.8 | | | 22.2 | | | 100.0 | | |
| | 9 | 100.0 | | | 100.0 | | | 100.0 | | |

Note: The total (GNP) is broken down according to (i) whether the goods and services are 'private' or 'social' in nature, and (ii) whether they have been produced publicly or by private firms. Total production of social goods equals government purchases of goods and services. Public production thereof equals income originating in general government. Private production is residual. Total production of private goods equals GNP minus total production of social goods. Public production of private goods equals value added by government enterprise. Private production of private goods is residual.

Rows and columns 1, 4 and 7 give the absolute figures (in 10^6); rows 2, 5 and 8 comprise the percent of total for row; rows 3, 6 and 9 comprise the percent of total for column.

Sources:

For Canada: D.B.S., National Accounts, Income and Expenditure 1973.

For France: S.O.E.C., National Accounts, 1972.

For Germany: St.B., Volkswirtschaftliche Gesamtrechnungen, 1972.

For Switzerland: E.St.A., Nationale Buchhaltung der Schweiz 1969; Oeffentliche Finanzen der Schweiz 1969.

For United Kingdom: C.S.O., National Income and Expenditure 1972; Annual Abstracts of Statistics 1973.

For the United States: Musgrave and Musgrave (1973, p. 9).

Table 17: TOTAL EMPLOYMENT, UNEMPLOYMENT, CIVILIAN EMPLOYMENT AND TOTAL GOVERNMENT EMPLOYMENT AS A PERCENT OF TOTAL WORK FORCE, 1900 - 1970*)

| Country Year | CANADA | | | | | FRANCE | | | | | GERMANY | | | | |
|-----------------|--------|------|------|------|-------|--------|-----|------|--------------------|---------------------|---------|-----|------|------|---------------------|
| | TE | U | CE | TGE | Total | TE | U | CE | TGE | Total | TE | U | CE | TGE | Total |
| 1900 | 96.0 | 4.0 | 95.7 | n.a. | 1861 | 98.4 | 1.6 | 96.9 | . | 19900 ^{a)} | . | . | . | . | . |
| 1910 | 97.0 | 3.0 | 96.9 | n.a. | 2801 | 99.0 | 1.0 | . | . | 20240 ^{b)} | . | . | . | . | . |
| 1920 | 94.2 | 5.8 | 94.1 | n.a. | 3318 | 97.4 | 2.6 | . | . | 20660 | . | . | . | . | . |
| 1930 | 90.9 | 9.1 | 90.7 | n.a. | 4066 | 97.9 | 2.1 | . | . | 20960 ^{c)} | . | . | . | . | . |
| 1938 | 88.6 | 11.4 | 88.5 | n.a. | 4595 | 96.4 | 3.6 | . | . | 20220 | 94.5 | 5.5 | . | . | 41583 ^{d)} |
| 1950 | 96.8 | 3.2 | 95.9 | n.a. | 5210 | 98.4 | 1.6 | 94.9 | 9.5 | 19517 ^{e)} | 92.8 | 7.2 | 92.8 | 11.3 | 21950 |
| 1960 | 93.2 | 6.8 | 94.6 | n.a. | 6531 | 98.8 | 1.2 | 94.0 | 10.9 ^{f)} | 19528 | 99.0 | 1.0 | 97.9 | 11.6 | 26518 |
| 1965 | 96.2 | 3.8 | 94.6 | 10.3 | 7255 | 98.7 | 1.3 | 95.9 | 11.4 ^{f)} | 20381 | 99.5 | 0.5 | 97.8 | 12.8 | 27300 |
| 1970 | 94.2 | 5.8 | 92.8 | 10.8 | 8494 | 98.3 | 1.7 | 95.7 | 12.0 ^{f)} | 21310 | 99.5 | 0.5 | 97.6 | 13.4 | 27353 |

a) 1901, b) 1911, c) 1931, d) 1939, e) 1954, f) estimated

Table 17: continued

| Country Year | SWITZERLAND | | | | | UNITED KINGDOM | | | | | UNITED STATES | | | | |
|-----------------|-------------|-----|-------|--------------------|--------------------|----------------|-----|------|-----|-------|---------------|------|------|------|-------|
| | TE | U | CE | TGE | Total | TE | U | CE | TGE | Total | TE | U | CE | TGE | Total |
| 1900 | . | . | . | . | 1587 | . | . | . | . | . | 94.9 | 5.1 | 94.0 | n.a. | 27766 |
| 1910 | . | . | . | . | 1783 | . | . | . | . | . | 94.1 | 5.9 | 93.7 | n.a. | 36580 |
| 1920 | 92.6 | 7.4 | 92.6 | . | 1872 | . | . | . | . | . | 95.9 | 4.1 | 95.1 | n.a. | 40625 |
| 1930 | 100.0 | 0.0 | 100.0 | 9.0 ^{c)} | 1935 ^{a)} | . | . | . | . | . | 91.3 | 8.7 | 90.8 | 6.5 | 50080 |
| 1938 | 99.9 | 0.1 | 99.9 | 10.2 ^{c)} | 1984 ^{b)} | . | . | . | . | . | 81.1 | 18.9 | 80.5 | 11.2 | 54950 |
| 1950 | 99.9 | 0.1 | 99.9 | 11.0 | 2156 | 98.8 | 1.2 | 95.8 | 8.7 | 23526 | 94.9 | 5.1 | 92.3 | 12.3 | 63858 |
| 1960 | 99.9 | 0.1 | 99.9 | 11.5 | 2514 | 98.7 | 1.3 | 96.7 | . | 25010 | 94.7 | 5.3 | 91.2 | 15.7 | 72142 |
| 1965 | 100.0 | 0.0 | 100.0 | 10.4 | 2870 | 98.9 | 1.1 | 97.2 | 6.8 | 26049 | 95.6 | 4.4 | 92.1 | 17.5 | 77178 |
| 1970 | 100.0 | 0.0 | 100.0 | 13.1 | 3005 | 97.8 | 2.2 | 96.4 | 7.0 | 25675 | 95.2 | 4.8 | 91.5 | 18.9 | 85903 |

a) 1929, b) 1940, c) estimated

*) TE = Total Employment
 U = Unemployment
 CE = Civilian Employment
 TGE = All Government Total Employment
 Total = Total work force (in 10³)

} as a percent of total work force

Note: Total work force comprises civilian non-government employment, civilian government employment, armed forces and unemployment.

Note (to Tables 17 - 20): All government total employment (TGE) refers to full-time equivalent employment; it includes government enterprises and all military personal if not otherwise stated.

Sources:

For Canada: Firestone (1958, p. 58); Urquhart and Buckley (1965, p. 61); D.B.S., National Accounts, Revenue and Expenditure, 1967; Canada Yearbook, 1972.

For France: Carre, Dubois and Malinvaud (1972, pp. 121-126, p. 674 et seqq.); O.E.C.D., Manpower Statistics 1950-1962, and Labour Force Statistics 1961-1972.

For Germany: O.E.C.D., Manpower Statistics 1950-1962; St.B., Wirtschaft und Statistik, various years; the all government total employment excludes all military personal because of statistical reasons.

For Switzerland: E.St.A., Statistisches Jahrbuch der Schweiz, various years; the Swiss figures of all government total employment do not comprise military personal (the armed forces are counted to their civilian profession); data for 1970 include part-time employment.

For United Kingdom: O.E.C.D., Manpower Statistics 1950-1962, Labour Force Statistics 1962-1972; C.S.O., Annual Abstracts of Statistics, several years; the all government total employment excludes government enterprises employment.

For the United States: the totals and shares of 1920 and before base on decennial census data, U.S.B.o.B., Historical Statistics of the United States Colonial Times to 1957; thereafter Economic Report of the President, 1974.

Table 18: DISTRIBUTION OF ALL GOVERNMENTS TOTAL EMPLOYMENT BY LEVEL OF GOVERNMENT, 1950 - 1970*)

| Country Year | CANADA | | | | FRANCE | | | | GERMANY | | | | SWITZER- LAND | | | | UNITED KINGDOM | | | UNITED STATES | | | |
|-----------------|--------|------|------|-------------------|--------|---|---|--------------------|---------|------|------|-------|------------------|------|------|-------|-------------------|------|-------|------------------|------|------|-------|
| | F | S | L | Total | F | S | L | Total | F | S | L | Total | F | S | L | Total | F | L | Total | F | S | L | Total |
| 1950 | . | . | . | . | . | . | . | . | 55.4 | 25.8 | 18.9 | 2290 | 41.7 | 26.1 | 32.3 | 238 | 63.8 | 36.2 | 2052 | 45.5 | 13.4 | 41.1 | 7862 |
| 1955 | . | . | . | . | . | . | . | 1850 ^{a)} | 54.4 | 27.1 | 18.5 | 2319 | . | . | . | . | 65.3 | 34.7 | 2092 | 51.2 | 12.1 | 36.7 | 10367 |
| 1960 | 52.1 | 26.2 | 21.7 | 649 ^{b)} | . | . | . | 2220 ^{d)} | 51.6 | 30.3 | 18.0 | 2872 | 40.5 | 27.7 | 31.8 | 288 | 58.1 | 41.9 | 1795 | 43.6 | 13.5 | 42.9 | 11322 |
| 1965 | 44.6 | 34.7 | 20.7 | 744 | . | . | . | 2325 ^{d)} | 51.6 | 30.2 | 18.2 | 3322 | 40.0 | 28.2 | 31.8 | 298 | 56.2 | 43.8 | 1761 | 39.9 | 15.2 | 44.9 | 13312 |
| 1970 | 43.4 | 36.2 | 20.4 | 852 ^{c)} | . | . | . | 2565 ^{d)} | 48.2 | 32.8 | 19.0 | 3516 | 36.8 | 30.9 | 32.3 | 393 | 52.4 | 47.6 | 1803 | 37.4 | 17.0 | 45.6 | 16216 |

1954, b) 1961, c) 1967, d) estimated

*) F = Federal government employment
 S = State governments employment
 L = Local governments employment
 } as a percent of all governments
 total employment (Total)

Total = All governments total employment including armed forces (in 10³)

Notes and Sources: see Table 17

Table 19: DISTRIBUTION OF GOVERNMENT AND NON-GOVERNMENT WAGES BILL, 1950 - 1970*)

| Country Year | CANADA | | | | FRANCE | | | | GERMANY | | | | SWITZER- LAND | | | | UNITED KINGDOM | | | | UNITED STATES | | | |
|-----------------|--------|------|------|---------------------|--------|------|------|--------|---------|------|----|--------|------------------|------|----|---------------------|-------------------|------|------|-------|------------------|------|------|----------------------|
| | TG | CG | NG | Total | TG | CG | NG | Total | TG | CG | NG | Total | TG | CG | NG | Total | TG | CG | NG | Total | TG | CG | NG | Total |
| 1950 | 12.4 | 10.8 | 87.6 | 8629 | . | . | . | 40320 | . | . | . | 44038 | . | . | . | 10485 | . | . | . | 7603 | 14.6 | 11.6 | 85.4 | 140600 ^{a)} |
| 1955 | 15.7 | 12.7 | 84.3 | 13223 | . | . | . | 76100 | . | 14.2 | . | 81710 | . | . | . | 14100 | . | . | . | 11221 | 16.1 | 12.1 | 83.9 | 224500 |
| 1960 | 17.9 | 15.1 | 82.1 | 18245 ^{b)} | . | . | . | 131480 | . | 13.1 | . | 133610 | . | . | . | 18995 | 16.1 | 11.8 | 83.9 | 18195 | 16.6 | 13.2 | 83.4 | 294200 |
| 1965 | 17.9 | 15.7 | 82.1 | 26179 | 15.2 | 13.1 | 84.8 | 225720 | . | 16.1 | . | 225810 | 10.3 | 89.7 | . | 32090 | 16.3 | 12.2 | 83.7 | 21089 | 17.6 | 14.5 | 82.4 | 393800 |
| 1970 | 18.3 | 16.1 | 81.7 | 32389 ^{c)} | 15.8 | 13.8 | 84.2 | 386000 | . | 17.5 | . | 352140 | 12.2 | 87.8 | . | 45017 ^{d)} | 17.9 | 13.8 | 82.1 | 30179 | 19.2 | 15.9 | 80.8 | 599800 |

a) 1949, b) 1961, c) 1967, d) estimated

*) TG = Total Government
 CG = Civilian Government
 NG = Non-Government

} wages bill as a percent of total government
 wages bill (Total)

Total = Total government and non-government wages bill (in 10⁶)

Notes and Sources: see Table 17

Table 20; DISTRIBUTION OF ALL GOVERNMENTS TOTAL WAGES BILL BY LEVEL OF GOVERNMENT, 1950 - 1970*)

| Country Year | CANADA | | | | | FRANCE | | | | | GERMANY | | | | |
|-----------------|--------|------|------|------|--------------------|--------|------|------|----|-------|---------|------|------|------|-------|
| | FMW | FNW | SW | LW | Total | FMW | FNW | SW | LW | Total | FMW | FNW | SW | LW | Total |
| 1950 | 12.8 | 31.3 | 20.0 | 35.6 | 1067 | . | . | . | . | . | . | . | . | . | . |
| 1955 | 18.9 | 32.0 | 16.9 | 32.2 | 2076 | . | . | . | . | . | . | 7.6 | 61.4 | 31.0 | 11617 |
| 1960 | 15.6 | 28.7 | 18.8 | 36.9 | 3270 | . | . | . | . | . | . | 15.1 | 56.0 | 28.9 | 17560 |
| 1965 | 12.5 | 26.7 | 19.7 | 41.1 | 4692 | 13.9 | 66.9 | 19.2 | 34 | 323 | . | 24.3 | 50.3 | 25.4 | 36396 |
| 1970 | 11.8 | 27.1 | 21.0 | 40.1 | 5921 ^{a)} | 11.9 | 70.2 | 17.9 | 60 | 942 | . | 23.7 | 51.5 | 24.8 | 61484 |

a) 1967, b) Total refers to Government Non-Military Wages Bill only

Table 20: continued

| Country Year | SWITZER- LAND | | | | | UNITED KINGDOM | | | | UNITED STATES | | | | |
|-----------------|------------------|------|------|------|-------|-------------------|------|------|--------------------|------------------|------|------|---------------------|-------|
| | FMW | FNW | SW | LW | Total | FMW | FNW | LW | Total | FMW | FNW | SW | LW | Total |
| 1950 | . | . | . | . | . | . | . | . | . | 20.6 | 32.3 | 47.1 | 20599 ^{a)} | |
| 1955 | . | . | . | . | . | . | . | . | . | 24.8 | 28.0 | 11.3 | 35.9 | 36145 |
| 1960 | . | . | . | . | . | 26.5 | 28.5 | 44.9 | 2923 ^{b)} | 20.3 | 26.8 | 12.5 | 40.4 | 48710 |
| 1965 | 17.0 | 49.5 | 33.4 | 3312 | 25.1 | 29.5 | 45.4 | 3466 | 17.5 | 25.1 | 14.3 | 43.0 | 69228 | |
| 1970 | 15.7 | 47.2 | 37.1 | 5482 | 22.8 | 29.9 | 47.3 | 5424 | 17.0 | 24.2 | 16.0 | 42.7 | 115042 | |

a) 1949, b) 1963

*) FMW = Federal Government Military Wages Bill
 FNW = Federal Government Non-Military Wages Bill
 SW = State Governments Wages Bill
 LW = Local Governments Wages Bill
 Total = All governments total wages bill (in 10⁶)

} as a percent of all governments total wages bill (Total)

Notes and Sources: see Table 17

Table 21: DISTRIBUTION OF ALL GOVERNMENTS TOTAL REVENUE BY SOURCES, 1930 - 1970*)

| Country Year | CANADA | | | | | | FRANCE | | | | | |
|-----------------|--------|------|------|-----|------|--------------------|--------|------|-----|------|----|----------------------|
| | IT | WT | CT | OT | NT | Total R. | IT | WT | CT | OT | NT | Total R. |
| 1930 | 9.9 | 33.4 | 32.1 | 5.3 | 19.3 | 742 ^{c)} | 25.6 | 49.7 | 0.3 | 24.4 | | 708 ^{a)} |
| 1938 | 14.9 | 25.7 | 36.7 | 4.5 | 18.1 | 1077 ^{d)} | 32.5 | 46.1 | -- | 21.4 | | 767 |
| 1950 | 37.7 | 10.6 | 33.9 | 2.6 | 15.2 | 4440 | 24.9 | 47.2 | 2.1 | 25.8 | | 34438 |
| 1955 | 36.7 | 13.2 | 33.5 | 1.0 | 15.6 | 6873 | 25.2 | 49.9 | 2.0 | 22.9 | | 52210 ^{e)} |
| 1960 | 38.7 | 15.3 | 29.7 | 1.7 | 14.7 | 9718 | 27.4 | 49.4 | 1.6 | 21.6 | | 78356 ^{f)} |
| 1965 | 38.9 | 13.1 | 32.3 | 1.6 | 14.1 | 15353 | 28.3 | 52.5 | 2.3 | 16.9 | | 137941 |
| 1970 | 38.3 | 12.5 | 29.8 | 2.2 | 17.2 | 32259 | 24.8 | 55.5 | 2.6 | 17.1 | | 171929 ^{h)} |

Table 21: continued

| Country Year | GERMANY | | | | | | SWITZERLAND | | | | | |
|-----------------|---------|-----|------|------|------|---------------------|-------------|------|----|------|----|----------|
| | IT | WT | CT | OT | NT | Total R. | IT | WT | CT | OT | NT | Total R. |
| 1930 | . | . | . | . | . | . | . | . | . | . | . | . |
| 1938 | . | . | . | . | . | . | . | . | . | . | . | . |
| 1950 | 27.8 | 6.6 | 47.6 | 4.9 | 13.1 | 18583 | 47.2 | 26.0 | -- | 26.8 | | 4226 |
| 1955 | 30.9 | 5.4 | 35.8 | 18.6 | 9.3 | 38785 | . | . | . | . | | . |
| 1960 | 31.8 | 3.7 | 31.2 | 14.8 | 18.6 | 90139 ^{g)} | 46.6 | 28.9 | -- | 24.6 | | 7556 |
| 1965 | 32.5 | 3.4 | 31.8 | 15.0 | 17.3 | 126144 | . | . | . | . | | . |
| 1970 | 33.9 | 3.3 | 33.4 | 13.2 | 16.2 | 182224 | 54.3 | 27.5 | -- | 18.2 | | 19839 |

Table 21: continued

| Country Year | UNITED KINGDOM | | | | | | UNITED STATES | | | | | |
|-----------------|----------------|------|------|----|------|----------|---------------|------|------|-----|------|---------------------|
| | IT | WT | CT | OT | NT | Total R. | IT | WT | CT | OT | NT | Total R. |
| 1930 | . | . | . | . | . | . | 11.6 | 45.2 | 16.0 | 4.6 | 22.5 | 10289 ^{b)} |
| 1938 | 30.6 | 23.0 | 32.5 | -- | 13.9 | 1261 | 19.5 | 26.5 | 22.9 | 5.1 | 25.9 | 17484 |
| 1950 | 38.8 | 11.3 | 41.1 | -- | 8.7 | 4664 | 42.4 | 11.6 | 19.8 | 2.8 | 23.4 | 66679 |
| 1955 | 39.1 | 11.2 | 33.6 | -- | 16.1 | 5930 | 46.5 | 10.6 | 16.5 | 2.6 | 23.8 | 106414 |
| 1960 | 38.0 | 10.7 | 36.5 | -- | 14.8 | 7177 | 44.1 | 11.3 | 16.2 | 2.4 | 26.1 | 153106 |
| 1965 | 38.2 | 11.7 | 35.5 | -- | 14.6 | 10512 | 42.9 | 12.3 | 17.3 | 2.2 | 25.4 | 193583 |
| 1970 | 39.9 | 9.8 | 35.5 | -- | 14.8 | 18624 | 43.9 | 11.1 | 15.1 | 2.0 | 28.0 | 321991 |

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1.

a) 1929, b) 1932, c) 1933, d) 1939, e) 1956, f) 1959, g) 1961, h) 1968

- *) IT = Income Tax
- WT = Wealth Tax
- CT = Consumption Tax
- OT = Other Tax
- NT = Non-Tax Receipts

} as a percent of all governments
total revenue

Total = All Governments Total Revenue (in 10⁶)

Notes (to Tables 21-24): Income Tax comprises individual and corporation income tax as well as gift and inheritance taxes; Wealth Tax comprises property taxes (including taxes on land, buildings etc.); Consumption Tax comprises general sales tax as well as selective consumption taxes (on motor fuel, alcoholic beverages, tobacco etc.) and customs duties; Other Tax comprises various minor taxes which are hard to classify within the above groups; Non-Tax Receipts comprises government enterprises' profit, interest income, fees, charges, various contributions and other revenue; intergovernmental transfers are excluded in Table 21, but included in the following Tables 22-24; taxes collected under tax rental (sharing) agreements are included with the tax revenue of the renting governmental unit if not otherwise stated.

Sources:

For Canada: 1955 and before Urquhart and Buckley (1965, pp. 207-210), thereafter D.B.S., Federal Government Finance 1960, 1965 and 1970; Provincial Government Finance 1960, 1965 and 1970; Municipal Government Finance 1960, 1965 and 1970.

For France: Delorme (1973, pp. 47-51 and Appendix, Tables I-2, A-1.1, A-1.4 and A-1.6); I.N.S.E.E., Annuaire Statistique de la France, Résumé Rétrospectif; Annuaire Statistique de la France 1972.

For Germany: St.B., Statistisches Jahrbuch fuer die Bundesrepublik Deutschland, various years; B.M.F., Finanzbericht, various years.

For Switzerland: E.St.A., Die Finanzen von Bund, Kantonen und Gemeinden 1938-1971; Oeffentliche Finanzen der Schweiz, various years; Finanzhaushalt der Kantone 1938-1971; Statistisches Jahrbuch der Schweiz, various years.

For United Kingdom: C.S.O., National Income and Expenditure 1963-1973; Annual Abstracts of Statistics, various years.

For the United States: U.S.B.o.C., Historical Statistics of the United States Colonial Times to 1957; Historical Statistics of the United States, Continuation to 1962 and Revisions; Statistical Abstract of the United States 1972; unemployment tax is included (classified as non-tax receipt).

Table 22: DISTRIBUTION OF FEDERAL GOVERNMENT REVENUE BY SOURCES, 1930 - 1970*)

| Country Year | CANADA | | | | | | FRANCE | | | | | |
|-----------------|--------|-----|------|-----|------|-------------------|--------|------|------|-----|------|----------------------|
| | IT | WT | CT | OT | NT | Total OR | IT | WT | CT | OT | NT | Total OR |
| 1930 | 19.4 | -- | 66.3 | 0.6 | 13.7 | 315 ^{c)} | 25.1 | 15.7 | 46.4 | -- | 12.8 | 514 ^{a)} |
| 1938 | 25.8 | -- | 63.2 | 0.4 | 10.7 | 524 ^{d)} | 27.5 | 12.5 | 45.6 | -- | 14.4 | 547 |
| 1950 | 50.7 | 1.1 | 39.7 | 0.6 | 7.9 | 3052 | 26.6 | 5.0 | 43.9 | 2.5 | 22.0 | 21931 |
| 1955 | 52.2 | 1.4 | 38.4 | 0.4 | 7.6 | 4668 | 27.6 | 4.9 | 48.3 | 2.5 | 16.9 | 41983 ^{e)} |
| 1960 | 55.8 | 1.3 | 34.8 | 0.1 | 7.9 | 6014 | 30.4 | 5.4 | 46.8 | 1.9 | 15.6 | 63991 ^{f)} |
| 1965 | 52.3 | 1.2 | 38.6 | -- | 8.0 | 8715 | 31.5 | 5.3 | 51.1 | 2.9 | 9.3 | 110285 |
| 1970 | 53.0 | 0.8 | 33.8 | -- | 12.4 | 16637 | 27.7 | 5.9 | 53.4 | 3.3 | 9.8 | 135622 ^{h)} |

Table 22: continued

| Country Year | GERMANY | | | | | | SWITZERLAND | | | | | |
|-----------------|---------|----|------|-----|-----|---------------------|-------------|----|------|----|------|----------|
| | IT | WT | CT | OT | NT | Total OR | IT | WT | CT | OT | NT | Total OR |
| 1930 | . | . | . | . | . | . | . | . | . | . | . | . |
| 1938 | . | . | . | . | . | . | 27.1 | | 8.0 | -- | 64.9 | 465 |
| 1950 | . | . | . | . | . | . | 39.0 | | 31.5 | -- | 29.5 | 1669 |
| 1955 | . | . | . | . | . | . | 26.7 | | 35.8 | -- | 37.5 | 1842 |
| 1960 | 22.0 | -- | 70.3 | 7.7 | -- | 30431 ^{g)} | 29.0 | | 28.9 | -- | 42.1 | 2806 |
| 1965 | 25.8 | -- | 63.5 | 5.5 | 5.2 | 62151 | 24.9 | | 31.9 | -- | 43.2 | 4410 |
| 1970 | 31.1 | -- | 55.3 | 8.7 | 4.5 | 87802 | 31.4 | | 32.3 | -- | 36.2 | 7241 |

Table 22 : continued

| Country Year | UNITED KINGDOM | | | | | | UNITED STATES | | | | | |
|-----------------|----------------|-----|------|----|------|----------|---------------|----|------|-----|------|--------------------|
| | IT | WT | CT | OT | NT | Total OR | IT | WT | CT | OT | NT | Total OR |
| 1930 | . | . | . | . | . | . | 39.6 | -- | 27.8 | 1.4 | 31.2 | 2634 ^{b)} |
| 1938 | 42.3 | 8.6 | 45.0 | -- | 4.1 | 912 | 41.8 | -- | 28.0 | 4.2 | 26.0 | 7226 |
| 1950 | 43.3 | 5.6 | 45.8 | -- | 5.2 | 4184 | 61.9 | -- | 18.0 | 0.9 | 19.2 | 43527 |
| 1955 | 44.7 | 3.5 | 38.4 | -- | 13.3 | 5186 | 66.1 | -- | 13.3 | 0.7 | 19.9 | 71915 |
| 1960 | 45.4 | -- | 43.7 | -- | 10.9 | 5997 | 63.9 | -- | 12.6 | 0.6 | 22.8 | 99800 |
| 1965 | 46.7 | -- | 43.5 | -- | 9.8 | 8602 | 65.9 | -- | 13.7 | 0.2 | 20.2 | 116833 |
| 1970 | 47.7 | -- | 42.4 | -- | 9.8 | 15569 | 65.5 | -- | 9.4 | 0.1 | 25.0 | 193743 |

a) 1929, b) 1932, c) 1933, d) 1939, e) 1956, f) 1959, g) 1961, h) 1968

- *) IT = Income Tax
- WT = Wealth Tax
- CT = Consumption Tax
- OT = Other Tax
- NT = Non-Tax Receipts

as a percent of federal government
total own revenue

Total OR = Federal Government Total Own Revenue (in 10⁶)

Notes and Sources: see Table 21

Table 23: DISTRIBUTION OF STATE GOVERNMENTS REVENUE BY SOURCES, 1930 - 1970*)

| Country Year | CANADA | | | | | | | FRANCE | | | | | | |
|-----------------|--------|------|------|------|------|------|-------------------|--------------------------------------|----|----|----|----|-----|----------|
| | IT | WT | CT | OT | NT | ROG | Total R. | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | 5.3 | 11.2 | 19.1 | 12.5 | 39.5 | 12.4 | 152 ^{b)} | Included in Local Government Revenue | | | | | | |
| 1938 | 8.9 | 13.2 | 22.9 | 8.9 | 37.6 | 8.5 | 258 ^{c)} | | | | | | | |
| 1950 | 13.4 | 4.0 | 28.1 | 4.8 | 36.8 | 12.9 | 951 | | | | | | | |
| 1955 | 5.2 | 4.5 | 28.6 | 2.5 | 36.9 | 21.8 | 1611 | | | | | | | |
| 1960 | 13.7 | 2.7 | 26.3 | 6.1 | 30.1 | 21.1 | 2557 | | | | | | | |
| 1965 | 27.5 | 2.3 | 31.5 | 4.4 | 30.0 | 9.2 | 5101 | | | | | | | |
| 1970 | 28.1 | 2.3 | 31.6 | 5.5 | 22.6 | 9.8 | 12597 | | | | | | | |

Table 23 : continued

| Country Year | GERMANY | | | | | | | SWITZERLAND | | | | | | |
|-----------------|---------|-----|-----|------|------|------|---------------------|-------------|-----|----|------|------|------|----------|
| | IT | WT | CT | OT | NT | ROG | Total R. | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | . | . | . | . | . | . | . | 39.8 | 5.3 | -- | 37.8 | 17.1 | 620 | |
| 1938 | . | . | . | . | . | . | . | 37.2 | 5.2 | -- | 34.4 | 23.3 | 704 | |
| 1950 | . | . | . | . | . | . | . | 44.5 | 4.8 | -- | 26.1 | 24.6 | 1492 | |
| 1955 | . | . | . | . | . | . | . | 47.4 | 5.7 | -- | 25.5 | 21.4 | 1907 | |
| 1960 | 82.2 | 5.1 | -- | 2.0 | 6.4 | 4.3 | 21573 ^{d)} | 49.7 | 6.2 | -- | 23.2 | 20.9 | 2768 | |
| 1965 | 51.9 | 4.6 | 2.0 | 8.6 | 14.6 | 18.3 | 48269 | 46.3 | 5.1 | -- | 17.8 | 30.8 | 5378 | |
| 1970 | 27.2 | 5.0 | 1.7 | 27.3 | 26.7 | 14.3 | 86186 | 48.0 | 5.0 | -- | 17.8 | 29.3 | 9287 | |

| Table 23: continued | | | | | | | |
|---------------------|---------------|------|------|------|------|------|--------------------|
| Country Year | UNITED STATES | | | | | | |
| | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | 6.0 | 19.5 | 35.0 | 13.9 | 15.1 | 10.5 | 2541 ^{a)} |
| 1938 | 7.2 | 8.4 | 35.2 | 8.3 | 28.0 | 12.9 | 5293 |
| 1950 | 9.4 | 4.9 | 35.1 | 7.6 | 25.5 | 17.4 | 13903 |
| 1955 | 9.3 | 4.9 | 36.5 | 8.2 | 25.8 | 15.2 | 19667 |
| 1960 | 10.3 | 4.4 | 33.1 | 7.1 | 24.5 | 20.5 | 32838 |
| 1965 | 11.4 | 4.1 | 31.5 | 6.5 | 25.4 | 21.1 | 48827 |
| 1970 | 14.5 | 3.1 | 30.7 | 5.6 | 23.3 | 22.8 | 88939 |

a) 1932, b) 1933, c) 1939, d) 1961

- *) IT = Income Tax
- WT = Wealth Tax
- CT = Consumption Tax
- OT = Other Tax
- NT = Non-Tax Receipts
- ROG = Receipts from Other Governments
- Total R. = Total Revenue (in 10⁶)

} as a percent of
state governments
total revenue

Notes and Sources: see Table 21

Table 24: DISTRIBUTION OF LOCAL GOVERNMENTS REVENUE BY SOURCES, 1930 - 1970*)

| Country Year | CANADA | | | | | | | FRANCE | | | | | | |
|-----------------|--------|------|-----|-----|------|------|-------------------|--------|------|-----|------|---------------------|-----|----------|
| | IT | WT | CT | OT | NT | ROG | Total R. | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | 1.4 | 78.6 | -- | 6.1 | 13.9 | -- | 294 ^{c)} | 27.1 | 16.9 | 1.0 | 55.0 | 194 ^{a)} | | |
| 1938 | 1.2 | 75.5 | 1.6 | 7.1 | 13.0 | 1.6 | 322 ^{d)} | 44.9 | 16.4 | -- | 38.8 | 221 | | |
| 1950 | -- | 69.6 | 4.3 | 9.2 | 14.3 | 2.6 | 575 | 17.2 | 39.8 | -- | 43.0 | 4835 | | |
| 1955 | -- | 77.3 | 4.7 | 1.8 | 11.6 | 4.6 | 988 | 16.2 | 36.5 | -- | 47.3 | 10227 ^{e)} | | |
| 1960 | -- | 78.6 | 5.1 | 0.4 | 10.1 | 5.8 | 1695 | 15.3 | 37.2 | -- | 48.3 | 14365 ^{f)} | | |
| 1965 | -- | 77.7 | 0.3 | 0.5 | 9.1 | 12.4 | 2291 | 16.1 | 37.1 | -- | 47.2 | 27656 | | |
| 1970 | -- | 77.6 | -- | 0.6 | 13.8 | 8.0 | 4644 | 14.8 | 41.4 | -- | 44.1 | 36307 ^{h)} | | |

Table 24: continued

| Country Year | GERMANY | | | | | | | SWITZERLAND | | | | | | |
|-----------------|---------|------|----|-----|------|------|----------|-------------|-----|----|------|------|------|----------|
| | IT | WT | CT | OT | NT | ROG | Total R. | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | . | . | . | . | . | . | . | -- | -- | -- | -- | -- | -- | -- |
| 1938 | . | . | . | . | . | . | . | 45.1 | 0.6 | -- | 54.3 | 617 | | |
| 1950 | . | . | . | . | . | . | . | 54.5 | 0.7 | -- | 44.7 | 1244 | | |
| 1955 | . | . | . | . | . | . | . | 60.1 | 0.8 | -- | 39.1 | 1507 | | |
| 1960 | . | . | . | . | . | . | . | 52.7 | 0.8 | -- | 13.2 | 20.8 | 2042 | |
| 1965 | 6.2 | 28.1 | -- | 5.0 | 28.0 | 32.7 | 33318 | 60.0 | 0.8 | -- | 17.1 | 22.0 | 3959 | |
| 1970 | 18.8 | 30.6 | -- | 1.6 | 13.0 | 35.6 | 43943 | 59.0 | 0.4 | -- | 20.0 | 20.6 | 6840 | |

Table 24: continued

| Country Year | UNITED KINGDOM | | | | | | | UNITED STATES | | | | | | |
|-----------------|----------------|------|----|----|------|------|----------|---------------|------|-----|-----|------|------|--------------------|
| | IT | WT | CT | OT | NT | ROG | Total R. | IT | WT | CT | OT | NT | ROG | Total R. |
| 1930 | . | . | . | . | . | . | . | -- | 67.2 | 0.4 | 1.4 | 17.9 | 13.1 | 6192 ^{b)} |
| 1938 | -- | 44.0 | -- | -- | 28.4 | 27.6 | 482 | -- | 57.3 | 1.6 | 2.1 | 16.0 | 23.0 | 7329 |
| 1950 | -- | 43.4 | -- | -- | 18.4 | 38.1 | 776 | 0.4 | 34.7 | 3.0 | 2.4 | 22.9 | 27.5 | 16101 |
| 1955 | -- | 39.4 | -- | -- | 21.9 | 38.7 | 1214 | 0.6 | 42.8 | 3.2 | 2.6 | 24.5 | 26.3 | 24166 |
| 1960 | -- | 39.3 | -- | -- | 20.9 | 39.8 | 1960 | 0.7 | 42.3 | 3.6 | 1.8 | 24.5 | 27.2 | 37324 |
| 1965 | -- | 38.8 | -- | -- | 21.8 | 39.4 | 3168 | 0.8 | 40.8 | 3.9 | 1.5 | 24.6 | 28.4 | 53408 |
| 1970 | -- | 33.1 | -- | -- | 22.4 | 44.5 | 5505 | 1.8 | 37.0 | 3.4 | 1.3 | 23.3 | 33.2 | 89082 |

a) 1929, b) 1932, c) 1933, d) 1939, e) 1956, f) 1959, g) 1961, h) 1968

*) IT = Income Tax
 WT = Wealth Tax
 CT = Consumption Tax
 OT = Other Tax
 NT = Non-Tax Receipts
 ROG = Receipts from Other Governments
 Total R. = Total Revenue (in 10⁶)

as a percent of
 local governments
 total revenue

Notes and Sources: see Table 21

Table 25: DISTRIBUTION OF ALL GOVERNMENTS TAX REVENUE BY LEVEL OF GOVERNMENT, 1930 - 1970^{a)}

| Country \ Year | CANADA | | | | | | | FRANCE | | | | | | |
|----------------|--------|-------|------|-------|-----|-------|-------------------|--------|--------|------|-------|------|-------|----------------------|
| | F | | S | | L | | TOTAL | F | | S | | L | | TOTAL |
| | DT | Total | DT | Total | DT | Total | | DT | Total | DT | Total | DT | Total | |
| 1930 | 21.6 | 296 | 33.3 | 123 | 2.0 | 296 | 542 ^{c)} | 28.8 | 448 | 36.7 | 30 | 19.0 | 58 | 536 ^{a)} |
| 1938 | 28.9 | 439 | 37.3 | 201 | 2.2 | 279 | 919 ^{d)} | 32.1 | 468 | 50.0 | 50 | 31.2 | 85 | 603 |
| 1950 | 66.0 | 2260 | 33.7 | 677 | 0.8 | 503 | 3840 | 34.1 | 17115 | 36.1 | 840 | 19.2 | 1916 | 19871 |
| 1955 | 58.3 | 4346 | 23.0 | 960 | 1.8 | 851 | 6157 | 32.9 | 34886 | 41.2 | 1582 | 29.9 | 3807 | 40275 ^{e)} |
| 1960 | 59.2 | 5542 | 35.4 | 1688 | 1.6 | 1458 | 8688 | 35.9 | 53999 | 28.1 | 2091 | 18.4 | 5339 | 61429 ^{f)} |
| 1965 | 56.2 | 7811 | 43.7 | 3925 | 1.5 | 2134 | 13870 | 34.6 | 99996 | 27.8 | 4411 | 20.9 | 10196 | 114603 |
| 1970 | 71.2 | 14015 | 53.5 | 9168 | -- | 3758 | 26941 | 30.6 | 122316 | 30.5 | 5256 | 24.8 | 15038 | 142610 ^{h)} |

Table 25: continued

| Country \ Year | GERMANY | | | | | | | SWITZERLAND | | | | | | |
|----------------|---------|-------|------|-------|------|-------|--------|-------------|-------|------|-------|------|-------|-------|
| | F | | S | | L | | TOTAL | F | | S | | L | | TOTAL |
| | DT | Total | DT | Total | DT | Total | | DT | Total | DT | Total | DT | Total | |
| 1930 | 19.4 | 4782 | 44.5 | 3249 | 27.5 | 4390 | 12421 | 47.5 | 558 | 88.5 | 278 | 98.4 | 279 | 1115 |
| 1938 | 30.5 | 13074 | 40.1 | 2219 | 16.2 | 4591 | 19884 | 28.2 | 430 | 87.8 | 335 | 98.6 | 287 | 1051 |
| 1950 | 18.4 | 9876 | 53.4 | 6294 | . | 2649 | 18819 | 39.0 | 1521 | 90.3 | 875 | 98.7 | 698 | 3094 |
| 1955 | 18.6 | 22585 | 72.3 | 10794 | . | 5627 | 39006 | 26.7 | 1734 | 89.2 | 1102 | 98.7 | 938 | 3773 |
| 1960 | 20.0 | 33809 | 73.8 | 21471 | . | 8562 | 63842 | 29.0 | 2636 | 88.9 | 1684 | 98.8 | 1381 | 5700 |
| 1965 | 27.1 | 59030 | 77.4 | 32366 | . | 13063 | 104459 | 24.9 | 4220 | 90.2 | 2890 | 98.7 | 2473 | 9582 |
| 1970 | 33.0 | 83597 | 54.2 | 40482 | 37.6 | 18240 | 152319 | 31.4 | 6746 | 90.6 | 5308 | 99.4 | 4168 | 16223 |

Table 25: continued

| Country Year | UNITED KINGDOM | | | | | UNITED STATES | | | | | | |
|-----------------|----------------|-------|----|-------|-------|---------------|--------|------|-------|-----|-------|--------|
| | F | | L | | TOTAL | F | | S | | L | | TOTAL |
| | DT | Total | DT | Total | | DT | Total | DT | Total | DT | Total | |
| 1930 | . | . | . | . | . | 70.9 | 1813 | 8.1 | 1890 | -- | 4274 | 7977 |
| 1938 | . | . | . | . | . | 67.0 | 5877 | 12.2 | 3834 | -- | 4478 | 14188 |
| 1950 | . | . | . | . | . | 70.9 | 37853 | 16.5 | 8958 | 0.8 | 7988 | 54799 |
| 1955 | 49.4 | 4692 | -- | 475 | 5167 | 72.4 | 63291 | 15.8 | 12735 | 1.3 | 11890 | 87915 |
| 1960 | 48.7 | 5569 | -- | 771 | 6340 | 68.7 | 88419 | 18.8 | 20172 | 1.4 | 18088 | 126678 |
| 1965 | 43.8 | 8048 | -- | 1228 | 9276 | 64.9 | 111231 | 21.4 | 29120 | 1.7 | 25126 | 165477 |
| 1970 | 50.6 | 14702 | -- | 1824 | 16526 | 66.1 | 185670 | 26.9 | 51052 | 4.2 | 38844 | 275566 |

a) 1929, b) 1932, c) 1933, d) 1939, e) 1956, f) 1959, g) 1961, h) 1968

DT = Direct Tax as a percent of total federal, respectively, state or local governments tax revenue

Total = Total tax income of the federal, respectively state or local governments (in 10^6)

TOTAL = Total of all governments tax income (in 10^6)

Note: Direct Tax includes both personal and corporation income tax as well as gift and inheritance taxes. Employees' and employers' social security contributions and intergovernmental transfers are excluded from the respective totals; Taxes collected under tax rental (sharing) agreements are included with the taxes of the renting government. For deviations see below.

Sources:

For Canada: D.B.S., National Accounts, Income and Expenditure 1926-1956, 1962, 1967, 1973.

For France: Delorme (1973, pp. 36-37 and Appendix, Tables I-3, II-1); I.N.S.E.E., Annuaire Statistique de la France, various years.

For Germany: St.B., Statistisches Jahrbuch fuer die Bundesrepublik Deutschland, various years; Volkswirtschaftliche Gesamtrechnungen 1965, 1971.

For Switzerland: E.St.A., Oeffentliche Finanzen der Schweiz, various years; Statistisches Jahrbuch der Schweiz, various years; Nationale Buchhaltung der Schweiz, various years; it should be noted that the share of 'direct' taxes also includes wealth taxes because of statistical reasons.

For United Kingdom: C.S.O., National Income and Expenditure, 1963-1973; Annual Abstracts of Statistics, various years.

For the United States: U.S.B.o.C., Historical Statistics of the United States Colonial Times to 1957; Tax Foundation, Facts and Figures on Government Finance 1973.

Table 26: continued

| Country Year | SWITZERLAND | | | | | | |
|-----------------|---------------|---|-------|-------------|-----|-------|-------|
| | Unconditional | | | Conditional | | | TOTAL |
| | S | L | Total | S | L | Total | |
| 1950 | - | - | - | 100.0 | 0.0 | 175 | 175 |
| 1955 | - | - | - | 100.0 | 0.0 | 207 | 207 |
| 1960 | - | - | - | 100.0 | 0.0 | 352 | 352 |
| 1965 | - | - | - | 100.0 | 0.0 | 1185 | 1185 |
| 1970 | - | - | - | 100.0 | 0.0 | 1916 | 1916 |

Table 26: continued

| Country Year | UNITED KINGDOM | | | | |
|-----------------|----------------|---------|-------------|---------|-------------------|
| | Unconditional | | Conditional | | TOTAL |
| | Local | % TOTAL | Local | % TOTAL | |
| 1950 | 75 | 14.9 | 428 | 85.1 | 503 ^{a)} |
| 1955 | 85 | 14.4 | 506 | 85.6 | 591 |
| 1960 | 602 | 66.2 | 307 | 33.4 | 909 |
| 1965 | 1037 | 69.3 | 460 | 30.7 | 1497 |
| 1970 | 2126 | 76.9 | 639 | 23.1 | 2765 |

Table 26: continued

| Country Year | UNITED STATES | | | | | | |
|-----------------|---------------|---|-------|-------------|------|-------|-------|
| | Unconditional | | | Conditional | | | TOTAL |
| | S | L | Total | S | L | Total | |
| 1950 | . | . | . | 91.5 | 8.5 | 2486 | 2486 |
| 1955 | . | . | . | 88.2 | 11.8 | 3131 | 3131 |
| 1960 | . | . | . | 91.5 | 8.5 | 6974 | 6974 |
| 1965 | . | . | . | 89.5 | 10.5 | 11029 | 11029 |
| 1970 | . | . | . | 88.1 | 11.9 | 21857 | 21857 |

a) 1953

Note: Taxes collected under tax sharing agreements are included with the taxes of the renting government unit(s), if not otherwise stated.

Sources:

For Canada: D.B.S., Federal Government Finance 1965, and 1970; Historical Review, Financial Statistics of Governments in Canada 1952-1962; transfers to the Yukon and Northwest Territories which are regarded as departments of the federal government are excluded.

For France: Andre (1973, Appendix A, Table A - II) and Delorme (1973, p. 37); a distinction between federal transfers to states (départements) and local governments is not possible because of statistical reasons: both governmental levels often are dealt together as "collectivité locals".

For Germany: B.M.F., Finanzbericht, various years; St.B., Statistisches Jahrbuch fuer die Bundesrepublik Deutschland, various years;

For Switzerland: E.St.A., Statistisches Jahrbuch der Schweiz, various years; Oeffentliche Finanzen der Schweiz, various years; Rohr and Gut (1970); federal conditional transfers to local governments are included in the grants to state governments (they are, however, of minor importance); unconditional transfers to state and local governments are omitted because of statistical reasons (they are also of minor importance).

For United Kingdom: C.S.O., Annual Abstracts of Statistics, various years; unconditional grants include federal grants, local taxation licence duties and assistance to local authorities whose local tax income (rate income) was heavily reduced by war conditions.

For the United States: U.S.B.o.C., Historical Statistics of the United States Colonial Times to 1957; Historical Statistics of the United States, Continuation to 1962 and Revisions; Economic Report of the President 1972; Tax Foundation, Facts and Figures on Government Finance, 1973.

Table 27: continued

| Country | | SWITZERLAND | | | | | | | | | |
|---------|----|-------------|-------|-------|-------|-------|----|------|----|-------|-------|
| Year | ND | W&H | E | T&C | NR&PI | H&UR | GG | P | DC | Other | Total |
| 1950 | - | 41.42 | 11.14 | 18.25 | 2.38 | 20.06 | - | 6.75 | - | - | 239 |
| 1955 | - | 35.21 | 15.84 | 38.72 | 5.22 | 1.50 | - | 3.51 | - | - | 215 |
| 1960 | - | 29.78 | 22.73 | 38.24 | 5.47 | 1.12 | - | 2.66 | - | - | 360 |
| 1965 | - | 28.71 | 18.43 | 38.81 | 4.91 | 4.69 | - | 4.46 | - | - | 701 |
| 1970 | - | 29.55 | 24.36 | 27.76 | 3.62 | 0.81 | - | 6.77 | - | 7.14 | 1238 |

Table 27: continued

| Country | | UNITED STATES | | | | | | | | | |
|---------|----|---------------|------|------|-------|------|----|---|----|-------|-------|
| Year | ND | W&H | E | T&C | NR&PI | H&UR | GG | P | DC | Other | Total |
| 1950 | - | 48.7 | 15.2 | 19.3 | - | - | - | - | - | 16.9 | 2323 |
| 1955 | - | 51.7 | 10.8 | 21.5 | - | - | - | - | - | 16.0 | 2762 |
| 1960 | - | 32.1 | 11.4 | 45.2 | - | - | - | - | - | 11.4 | 6382 |
| 1965 | - | 31.7 | 14.1 | 40.4 | - | - | - | - | - | 13.8 | 9874 |
| 1970 | - | 40.6 | 23.7 | 23.0 | - | - | - | - | - | 12.7 | 19252 |

*) ND = National Defence
W&H = Welfare & Health
E = Education
T&C = Transportation & Communication
H&UR = Housing & Urban Renewal
GG = General Government
P = Protection
DC = Debt Charges
O = Other
Total = Total federal conditional transfers to state governments
(in 10⁶)

Note: For more detailed comments see footnote Table 13

Table 28: DISTRIBUTION OF FEDERAL CONDITIONAL TRANSFERS TO LOCAL GOVERNMENTS BY FUNCTION, 1950 - 1970*)

| Country \ Year | CANADA | | | | | | | | | | |
|----------------|--------|-------|------|-------|-------|--------|----|----|----|-------|-------|
| | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total |
| 1950 | -- | 55.6 | -- | 44.4 | -- | . | -- | -- | -- | -- | 1 |
| 1955 | -- | 17.9 | -- | 42.9 | -- | . | -- | -- | -- | 39.3 | 3 |
| 1960 | -- | 20.3 | 17.5 | 44.7 | -- | . | -- | -- | -- | 17.5 | 10 |
| 1965 | -- | 28.7 | 4.0 | 8.0 | -- | . | -- | -- | -- | 59.3 | 61 |
| 1970 | -- | 13.6 | 9.8 | 21.2 | 0.1 | . | -- | -- | -- | 55.3 | 45 |

Table 28 : continued

| Country \ Year | FRANCE | | | | | | | | | | |
|----------------|--------|-------|---|-------|-------|--------|----|---|----|-------|--------------------|
| | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total |
| 1950 | . | . | . | . | . | . | . | . | . | . | 548 |
| 1955 | . | . | . | . | . | . | . | . | . | . | 1672 ^{e)} |
| 1960 | . | . | . | . | . | . | . | . | . | . | 5751 ^{e)} |
| 1965 | . | . | . | . | . | . | . | . | . | . | 6664 |
| 1970 | . | . | . | . | . | . | . | . | . | . | 9056 |

Table 28 : continued

| Country \ Year | GERMANY | | | | | | | | | | |
|----------------|---------|-------|---|-------|-------|--------|----|---|----|-------|-------|
| | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total |
| 1950 | . | . | . | . | . | . | . | . | . | . | . |
| 1955 | . | . | . | . | . | . | . | . | . | . | . |
| 1960 | . | . | . | . | . | . | . | . | . | . | . |
| 1965 | . | . | . | . | . | . | . | . | . | . | . |
| 1970 | . | . | . | . | . | . | . | . | . | . | . |

) estimated

Table 28: continued

| Country | SWITZERLAND | | | | | | | | | | |
|---------|--|----|-------|---|-------|-------|--------|----|---|----|-------|
| | Year | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other |
| 1950 | Included in Federal Conditional Transfers to State Governments | | | | | | | | | | |
| 1955 | | | | | | | | | | | |
| 1960 | | | | | | | | | | | |
| 1965 | | | | | | | | | | | |
| 1970 | | | | | | | | | | | |

Table 28: continued

| Country | UNITED KINGDOM | | | | | | | | | | | |
|---------|----------------|-----|-------|------|-------|-------|--------|------|----|-----|-------|-------------------|
| | Year | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total |
| 1950 | -- | 8.6 | 57.2 | 5.8 | 4.3 | 11.3 | -- | 9.7 | -- | 3.1 | | 428 ^{a)} |
| 1955 | -- | 7.2 | 59.8 | 5.9 | 1.5 | 13.2 | -- | 9.0 | -- | 3.4 | | 506 |
| 1960 | -- | 3.7 | 24.6 | 18.6 | 1.4 | 26.4 | -- | 20.5 | -- | 4.8 | | 307 |
| 1965 | -- | 2.1 | 25.9 | 19.8 | 1.6 | 23.0 | -- | 24.9 | -- | 2.7 | | 460 |
| 1970 | -- | 2.8 | 4.3 | 20.4 | 1.9 | 34.5 | -- | 33.5 | -- | 2.6 | | 630 |

Table 28: continued

| Country | UNITED STATES | | | | | | | | | | | |
|---------|---------------|----|-------|---|-------|-------|--------|----|---|----|-------|-------|
| | Year | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total |
| 1950 | . | . | . | . | . | . | . | . | . | . | . | 211 |
| 1955 | . | . | . | . | . | . | . | . | . | . | . | 369 |
| 1960 | . | . | . | . | . | . | . | . | . | . | . | 592 |
| 1965 | . | . | . | . | . | . | . | . | . | . | . | 1155 |
| 1970 | . | . | . | . | . | . | . | . | . | . | . | 2605 |

a) 1953

Table 29: DISTRIBUTION OF STATE TRANSFERS TO LOCAL GOVERNMENTS BY FUNCTION, 1950 - 1970*)

| Country \ Year | CANADA | | | | | | | | | | | | |
|----------------|--------|-------|------|-------|-------|--------|----|----|----|-------|-------------|---------|-------------------|
| | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total Cond. | Uncond. | TOTAL |
| 1950 | -- | 5.4 | 72.7 | 18.0 | 0.4 | -- | -- | -- | -- | 3.4 | 196.8 | 26.7 | 224 ^{a)} |
| 1955 | -- | 6.1 | 75.1 | 17.0 | 0.4 | -- | -- | -- | -- | 1.3 | 291.1 | 36.6 | 328 |
| 1960 | -- | 10.4 | 69.5 | 16.1 | 0.3 | -- | -- | -- | -- | 3.7 | 653.0 | 70.2 | 723 |
| 1965 | -- | 6.9 | 75.2 | 10.9 | 0.6 | -- | -- | -- | -- | 6.3 | 1301.2 | 200.4 | 1502 |
| 1970 | -- | 5.9 | 80.6 | 9.4 | 0.8 | -- | -- | -- | -- | 3.4 | 1997.0 | 289.2 | 2280 |

Table 29: continued

| Country \ Year | FRANCE | | | | | | | | | | | | |
|----------------|--------|-------|---|-------|-------|--------|----|---|----|-------|-------------|---------|-------|
| | ND | W & H | E | T & C | NR&PI | H & UR | GG | P | DC | Other | Total Cond. | Uncond. | TOTAL |
| 1950 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 1955 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 1960 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 1965 | . | . | . | . | . | . | . | . | . | . | . | . | . |
| 1970 | . | . | . | . | . | . | . | . | . | . | . | . | . |

a) 1952

Table 29: DISTRIBUTION OF STATE TRANSFERS TO LOCAL GOVERNMENTS BY FUNCTION, 1950 - 1970*)

| Country Year | UNITED STATES | | | | | | | | | | | Total Cond. | Uncond. | TOTAL |
|-----------------|---------------|------|------|------|-------|------|----|---|----|-------|-----|-------------|---------|-------|
| | ND | W&H | E | T&C | NR&PI | H&UR | GG | P | DC | Other | | | | |
| 1950 | - | 21.2 | 55.0 | 16.3 | - | - | - | - | - | - | 7.5 | 3735 | 334 | 4069 |
| 1955 | - | 19.4 | 58.4 | 16.9 | - | - | - | - | - | - | 5.3 | 5395 | 365 | 5760 |
| 1960 | - | 17.2 | 63.2 | 14.4 | - | - | - | - | - | - | 5.2 | 8637 | 443 | 9080 |
| 1965 | - | 18.6 | 63.9 | 12.5 | - | - | - | - | - | - | 5.0 | 13072 | 656 | 13728 |
| 1970 | - | 19.3 | 65.9 | 9.4 | - | - | - | - | - | - | 5.4 | 25934 | 1963 | 27897 |

*) ND = National Defence
W&H = Welfare & Health
E = Education
T&C = Transportation & Communication
H&UR = Housing & Urban Renewal
GG = General Government
P = Protection
DC = Debt Charges
O = Other

Total Cond. = Total state governments conditional transfers to local governments (in 10⁶)
Uncond. = State governments unconditional transfers to local governments (in 10⁶)
TOTAL = State governments total transfers to local governments (in 10⁶)

Note: For more detailed comments see footnote Table 6.

Table 30 : ALL GOVERNMENTS DEBT, 1930 - 1970*)

| Country Year | CANADA | | | | FRANCE | | | | GERMANY | | | |
|-----------------|--------|------|------|---------------------|--------|------|------|--------|---------|------|------|--------|
| | F | S | L | Total | F | S | L | Total | F | S | L | Total |
| 1930 | 58.4 | 21.1 | 20.4 | 7040 ^{a)} | 95.6 | 1.1 | 3.3 | 389 | 42.6 | 12.1 | 45.3 | 22603 |
| 1938 | 60.8 | 23.7 | 15.5 | 8410 ^{c)} | 91.3 | 2.5 | 6.2 | 510 | 78.6 | 6.9 | 14.5 | 34584 |
| 1950 | 80.7 | 13.1 | 6.2 | 21441 | 96.1 | 1.4 | 2.5 | 4069 | 32.6 | 61.3 | 6.1 | 18776 |
| 1960 | 68.8 | 18.5 | 12.7 | 38332 | 86.6 | 2.9 | 10.5 | 98412 | 37.6 | 43.9 | 18.5 | 68224 |
| 1970 | 72.3 | 13.0 | 14.7 | 57108 ^{e)} | 78.1 | 21.9 | | 132500 | 33.4 | 34.4 | 32.2 | 142872 |

Table : continued

| Country Year | SWITZERLAND | | | | UNITED KINGDOM | | | UNITED STATES | | | |
|-----------------|-------------|------|------|---------------------|----------------|------|---------------------|---------------|-----|------|---------------------|
| | F | S | L | Total | F | L | Total | F | S | L | Total |
| 1930 | . | . | . | . | . | . | . | 50.4 | 7.3 | 42.3 | 38692 ^{b)} |
| 1938 | 38.4 | 40.0 | 21.6 | 6098 | . | . | . | 65.7 | 5.9 | 28.4 | 56601 |
| 1950 | 62.3 | 23.0 | 14.7 | 12760 | 88.3 | 11.7 | 29510 ^{d)} | 91.4 | 1.9 | 6.7 | 281472 |
| 1960 | 44.7 | 30.3 | 25.0 | 14660 | 80.9 | 19.1 | 34289 | 80.4 | 5.2 | 14.4 | 356286 |
| 1970 | 24.3 | 44.5 | 31.2 | 28320 ^{f)} | 68.1 | 31.9 | 48554 | 72.1 | 8.2 | 19.7 | 514490 |

a) 1933, b) 1935, c) 1939, d) 1953, e) 1968, f) 1971

Note: All governments debt covers direct debt, i.e., indirect debt (incurred by agencies not included in 'government' as defined in most public financial statistics, but nevertheless guaranteed by the government in question) is excluded.

Sources:

For Canada: Urquhart and Buckley (1965, pp.203-204, 210-211); D.B.S., Federal Government Finance, various years; Provincial Government Finance, various years; and Municipal Government Finance, various years.

For France: 1950 and before in 10⁹ AF (Ancien Francs), thereafter in 10⁶ NF (Nouveau Francs); I.N.S.E.E., Annuaire Statistique de la France, Résumé Retrospectif, 1966; Annuaire Statistique de la France, 1974.

For Germany: The short-term debt (Kassenkredite) is excluded because of statistical reasons. 1938 and before St.B., Bevoelkerungsstruktur und Wirtschaftskraft der Bundeslaender, 1973; thereafter St.B., Statistisches Jahrbuch für die Bundesrepublik Deutschland, various years; B.M.F., Finanzbericht, various years.

For Switzerland: E.St.A., Oeffentliche Finanzen der Schweiz, various years; Finanzhaushalt der Kantone 1938-1971; Statistisches Jahrbuch der Schweiz, various years; the local debt covers only communities with 5000 inhabitants and over.

For United Kingdom: C.S.O., Annual Abstracts of Statistics, various years.

For the United States: Tax Foundation, Facts and Figures on Government Finance, 1973.

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