MEASURES OF TOTAL HOUSEHOLD CONSUMPTION

BY CHRISTOPHER SAUNDERS

Sussex European Research Centre, University of Sussex, England

By expenditure on education, health, housing and other public services, governments provide many goods and services which are alternatives to, or additional to, household expenditure on consumption. In most Western national accounts, the two forms of consumption are rigidly separated. Yet the combination of the two—the concept of total household consumption—has obvious importance for the measurement and comparison of living standards and for the formulation and analysis of policy. This concept is recommended as an additional aggregate in the revised SNA. It is displayed in the UN *International Comparison Project* (ICP). It is used as a major aggregate ("total consumption of the population"), although hitherto generally excluding non-material services, in the Material Product System. Yet it is rarely shown explicitly in Western national accounts. One reason is the slow progress in the analysis by purpose of government expenditure.

This paper shows how far figures of total household consumption, and of its division between collective and private consumption, can in fact be derived, for the advanced countries, from the data provided to the UN *Yearbook of National Accounts*, supplemented by the ICP. The results show first the wide national variations in the relation between the two forms of consumption but, secondly, the gaps in information on this crucially important topic. The relation between direct government expenditure for collective consumption and transfer payments to households ("social income") is also examined. High and low levels of these two forms of State support to consumption reinforce each other almost as often as they offset each other. But, again, the data provided by national accounting statistics are very incomplete.

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1. INTRODUCTION

This paper contains no original research. It is mainly an effort, by no means complete, to see how far the international compilations of national accounting statistics based on the SNA serve to answer a simple question: what contribution is made by the State,[1] in a number of Western countries and at different times, to consumers' expenditure on goods and services? This contribution can take two forms: the direct provision by the State of goods and services free or at highly subsidized prices, described as "collective consumption" as opposed to private consumption;[2] and cash transfers from the State to households, described as "social income". Both contributions, together with other State functions, are of course paid for, immediately or in the end, by taxes (including contributions to social security). Some people pay more taxes than they receive in either kind of benefit; others get more from the pool than they put into it. But the present paper is restricted to aggregates for consumers as a whole; it does not deal with the equally, or perhaps more, significant question of redistribution through State operations—a question on which a number of important researches in various countries have been reported in this *Review*.

[1] "The State" is used to mean, in SNA terms, General Government (central government, provincial and local authorities and social security schemes).

[2] I use indifferently the terms household consumption and private consumption and use "consumption" in place of the more accurate term "expenditure".

2. The Importance of Collective Consumption

The importance—for policy and forecasting, for analysis and for public information—of the answer to the question about the extent of collective consumption rests on the inadequacy of the concept of private consumption as a measure for comparing living standards (I will not attempt here to deal with all the other inadequacies of consumption, as recorded in national accounts, as a measure of living standards or of the highly-charged concept of welfare). Nevertheless judgements about comparative living standards, or about changes in them, are commonly made from the national accounting statistics of private consumption (aggregate or per head or per household). These are used as measures of the performance of an economy (even of a government) in increasing the prosperity of a community. Similarly, consumer demand analysis is most commonly based on the data about consumers' demand through the market alone.

I believe that most economists would agree that for many important purposes the concept of *total* consumption, or "consommation élargie" as it has been baptised by some authors, combining collective with private consumption, is a far more significant measure than private consumption alone. This is, indeed, recognized in the material product system (MPS) of national accounting used in the socialist economies, where "total consumption of the population" is treated as one of the key aggregates (in some cases going beyond material goods and associated services); in these economies, of course, the proportion of collective consumption is larger—although probably not enormously larger—than in most market economies. Yet this valuable indicator is rarely to be found in Western national accounts, and does not appear in the Western compilations by the international organizations.

It must be admitted that national accountants must carry a large part of the responsibility for this neglect. The immediate reason is that State expenditure has been generally classified, in practice, under quite different categories from private expenditure (being generally linked with the institutional allocation of governmental responsibilities). But underlying this immediate reason is the post-war development of our Western accounting system on the basis of the division of the economy into institutional sectors (government, households, enterprises, "rest of the world"). This sectoral breakdown obviously serves many highly essential purposes, for example in understanding—and, sometimes, controlling—the behaviour patterns of the major groups of actors on the economic stage and for foretelling the consequences of their behaviour pattern and policy aims. Thus from a certain, but rather limited, macro-economic point of view, it is the total "consumption" of goods and services by government, and its effects on private incomes and expenditure, that matters—irrespective of whether the government's "consumption" consists of guns or butter, of hospitals or administrative offices. Yet the difference is highly significant for the assembly of individuals which we call the household sector.

Is it exaggerated to suggest that this accounting system makes life unnecessarily difficult for our governors by appearing to detach the painful payment of taxes from whatever benefits we receive that the taxes pay for? The usual presentation of national accounts, putting household consumption in one table or on one line, and the mythical "consumption" of the government on another,

stresses this detachment of partly complementary activities. One might even suggest that the separation exacerbates inflationary pressures. Workers perceive an increase in taxes (less often, a reduction) as an element to be taken into account in pay bargaining (emphasising take-home pay as much as gross pay); it is less common to perceive an increase in public expenditure on, say, education or health or welfare services as any kind of offset.[3]

There is nothing novel in stressing the significance of the concept of total consumption. It is recognized—although without much emphasis—in the 1968 revision of the SNA. This proposes a classification by purpose of government expenditure aligned to that of household expenditure in order to permit aggregation of complementary categories.[4] The introduction of "total consumption of the population" to complement the SNA aggregates is also recommended in the UN Statistical Office's *Provisional Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation of Households* and is discussed in UN *Towards a System of Social and Demographic Statistics*. The problem—as we shall see below—is that nearly a decade later only a limited number, even of statistically advanced countries, have found it possible to apply in practice the admirable principles adopted by the UN Statistical Commission.

3. Some Studies of Total Consumption

However, with the assistance of national statistical offices, several estimates have been made of total consumption for particular countries or groups of countries. The following, by no means necessarily a complete list, may be cited:

(a) An early OECD study of public expenditure trends, based on replies by governments to a questionnaire, showed (*inter alia*) government current expenditure on goods and services for Education and Health in relation to private expenditure for those purposes, in 1957 and 1966, in nine OECD countries.[5] Data on Social Security transfer payments were also provided.

(b) Vera Cao-Pinna and Alain Foulon described the results of an intensive study putting together private and collective consumption, and cash transfers, in France and Italy in 1959, 1965 and 1969.[6]

[3]It is true that private expenditure is privileged by the power of choice as against public provision. Might it be fair to recognize this psychological distinction by discounting collective consumption (by 5, 50, 99 percent but surely not by 100 percent) before adding it to private consumption? Against this, note that collective consumption is generally valued at factor cost while private consumption is valued at market prices.

[4]"The categories . . . relating to such objectives as health, education, recreation and cultural services, or housing, are defined so that data may be compiled on the total consumption of the population for these purposes, irrespective of the class of economic agents who make the outlays" (UN, *A System of National Accounts*, Studies in Methods, Series F, No. 2, Rev. 3, 1968, Para 5.92).

[5]Mary Garin-Painter, Public Expenditure Trends, in OECD *Economic Outlook*, Occasional Studies, July 1970.

[6]Vera Cao-Pinna and Alain Foulon, A comparative analysis of household consumption financed by individual and collective resources in France and Italy (1959, 1965, 1969), *Review of Income and Wealth*, Series 21, No. 1, March 1975. An earlier version was presented to the IARIW Conference in 1973. This study is part of a project organized by the European Centre for Documentation and Research in Social Sciences, aimed at comparing trends and patterns of total household consumption in some capitalist and socialist countries.

(c) A paper on trends in private and collective consumption (consommation élargie) in France in 1959–74 was presented to a Seminar of the UN Economic Commission for Europe.[7]

(d) A similar study has been carried out in Belgium, with data for 1966, 1970 and 1974.[8]

(e) Finally, reference must be made to what must be the most extensive and detailed set of international data about private plus collective consumption. This is the UN *International Comparison Project* (hereafter ICP), with statistics for 16 countries for 1970 and 1973.[9] Of course, the estimates of total household consumption in this work are incidental to its main object of evolving price and purchasing power comparisons. Nevertheless, the detailed analysis of collective consumption into categories corresponding to the relevant parts of the SNA classification of private consumption has considerable value in itself. Some of the results are used below.

Two points must be made about all these research studies. The first is that the authors were obliged to engage in special enquiries of statistical offices and analyses of state budgets, household budgets etc. to obtain much necessary data about collective consumption not available in published national sources. The second point is that the categories of consumption used (and, no doubt, the quality of the estimates) differ in the separate studies—necessarily because of the heterogeneity of the classifications in the different national sources on which the authors, directly or indirectly, had to rely, as well as because of the time and resources available to the authors and to those who supplied the basic information. But all used the SNA classifications as a starting point.

It seems that despite the efforts of the designers of the SNA, progress in the analysis of government expenditure by function or purpose—that is, according to the policy aims of the different kinds of State expenditure—has in many countries lagged behind the formulation by national accounting statisticians of systematic accounting principles. As Cao-Pinna and Foulon put it: "Information on so-called "private" and "public" consumption currently published in the framework of national accounts provides only moderate help to policy makers who are more and more confronted with the crucial problem of identifying an appropriate compromise between economic growth objectives and social welfare aims."[10]

4. Private and Collective Consumption in the UN Yearbook

To test this somewhat pessimistic impression, in what follows I have extracted from the UN *Yearbook of National Accounts Statistics* 1976 as much information

[7]M. Rigaudrat (Commissariat General du Plan), Les tendances de la consommation des ménages sur longue période, Paper for ECE seminar at St. Maximin, France, September 1977 (EC.AD/SEM, 5/R 11). The paper is based largely on the researches of CREDOC (Foulon and Desce), which has been one of the pioneers in this field.

[8]Jacqueline Poelmans and Fabienne Itzkovitz, Calcul de la consommation élargie pour la Belgique, *Cahiers economiques de Bruxelles*, No. 77, ler trimestre 1978.

[9]Kravis, Heston and Summers, *International comparisons of real product and purchasing power*; Phase II, (ICP) Johns Hopkins University Press 1978. This second phase covers 8 developed market economies, 7 developing market economies and one socialist economy (Hungary).

[10]Cao-Pinna and Foulon, op. cit. page 53.

as is recorded there about collective consumption expenditure on categories complementary to the corresponding categories of private consumption. The work was originally done on the 1976 Yearbook; a few additional figures have been added from the 1977 and 1978 editions, but these contain little more information (apart from adding an extra year or two). I covered as may OECD countries as provided some information in usable form—14 in Europe, the United States and Australia.

Of course, it might have been possible to extract more data by using national sources. But I felt it right to assume that if the necessary information—mainly that on general government expenditure by purpose—were available, the national statistical offices would have provided it to the UN Statistical Office.[11] Examination of the OECD and EEC compilations of national accounts did not add to the information in the UN Yearbook. In any case, international comparability is the essence of the matter, and the comparability traps inherent in setting one national source against another still carry too many risks for those unfamiliar with the variability in detail of national statistical practices.

Reference may also be made to a series of studies by the OECD on public expenditures in member countries on education, health and income maintenance.[12] These studies provide only a limited amount of additional data about total expenditures for these purposes to that in the Yearbooks, but they do provide useful information about the constituents of each item and, for several countries, breakdowns of transfer payments according to purpose. Another study, by the UN Economic Commission for Europe, deals with *public employment* by purpose in a number of market economies.[13] All the studies demonstrate the extreme difficulty of securing more than approximate comparability between the existing official statistics of public expenditure by purpose in different countries.

Table 1 sets out the basic data of private and collective consumption in 1970, 1973 (for comparison with the ICP) and 1975 (the latest data shown in the UN Yearbook), in the form of private and collective expenditure per head of population in national currencies and the ratio of collective to private consumption. The categories of expenditure follow those recommended for general government current expenditure on goods and services, by purpose, in the SNA, and which can be regarded as complementary to private consumption, namely:[14]

1. Education.
2. Health.
3. Social security and welfare services (i.e. expenditure on goods and services, excluding transfer payments).

[11]This is not necessarily the case. Thus the French *Comptes de la Nation* gives, as a "satellite account", an analysis by purpose of consolidated public expenditure in a classification which does not seem far removed from what is needed to fill gaps in the French contribution to the UN Yearbook.

[12]OECD, *Studies in Resource Allocation*: *Public Expenditure on Education* (1976), *Public Expenditure on Income Maintenance Programmes* (1976), *Public Expenditure on Health* (1978), *Public Expenditure Trends* (1978).

[13]UN, Economic Commission for Europe, Employment in General Government in Industrial Market Economies, in *Economic Bulletin for Europe*, Vol. 30, No. 2 (1979).

[14]UN, *A System of National Accounts* (1968), Table 5.3, pages 87ff. Note that practically all countries include non-profit-making institutions serving households in the household sector for this purpose.

TABLE 1

PRIVATE AND COLLECTIVE FINAL CONSUMPTION OF GOODS AND SERVICES ON CURRENT ACCOUNT, PER HEAD OF POPULATION, IN NATIONAL CURRENCIES

		(1)	(2) Education	(3)	(4)	(5) Health	(6)	(7) Housing &	(8) Community	(9) Amenities	(10) Other Social Services
		Private	Collective	Co/Pr[a]	Private	Collective	Co/Pr[a]	Private	Collective	Co/Pr[a]	Collective
Austria	1970	—	1.59	—	1.02	1.92	1.88	—	—	—	—
000 Sch.	1973	—	2.52	—	1.45	2.61	1.80	—	—	—	—
	1975	—	—	—	2.20	—	—	—	—	—	—
Belgium	1970	0.17	6.94	40.15	4.98[b]	2.18*	—	12.13	0.13*	0.01	1.11
000 BF	1973	0.22	10.45	48.02	7.39[b]	2.35	—	15.48	0.16*	0.01	1.74
	1975	0.31	15.90	51.60	10.27	—	—	21.87	—	—	2.45
Denmark	1970	0.09	1.12	12.67	0.34	0.91	2.70	—	—	—	—
000 Kr	1973	0.15	1.62	10.92	0.50	1.47	2.96	—	—	—	—
	1975	0.21	—	—	0.55	—	—	—	—	—	—
Finland	1970	0.09	0.45	4.87	0.14	0.34	2.46	—	—	—	—
000 Markkaa	1973	0.12	0.71	6.02	0.22	0.56	2.54	—	—	—	—
	1975	0.12	1.17	9.41	0.34	0.89	2.63	—	—	—	—
France	1970	0.03	0.55*	18.33	0.91	0.08*	0.09	1.27	0.04	—	—
000 FF	1973	0.04	0.79*	19.75	1.34	0.11*	0.08	1.79	0.06	—	—
	1975	0.05	—	—	1.89	—	—	2.55	—	—	—
Germany FR	1970	0.07*	0.32*	4.82	0.17[c]	0.12*	—	0.92	0.01	0.01	—
000 DM	1973	0.10*	0.47*	4.81	0.23[c]	0.19*	—	1.24	0.01	0.01	—
	1975	—	—	—	0.29	—	—	—	—	—	—
Greece	1970	0.37	0.64	1.72	0.89	0.34	0.39	—	—	—	—
000 Drachma	1973	0.53	0.94	1.79	1.22	0.54	0.44	—	—	—	—
	1975	0.92	1.44	1.57	1.74	0.85	0.49	—	—	—	—
Italy	1970	2.53	41.52	16.38	48.16	8.48	0.18	89.77	3.97	0.04	10.34
000 Lire	1973	3.04	68.72	22.61	75.32	11.39	0.15	131.10	6.73	0.05	16.54
	1975	3.99	89.31	22.36	116.46	14.88	0.13	183.31	7.72	0.04	20.49
Netherlands	1970	0.01	0.51	68.00	0.41	0.01*	0.04	0.62	—*	—	0.04[d]
000 Gulden	1973	0.01	0.76	41.33	0.71	0.02*	0.03	0.90	—*	—	0.07[d]
	1975	0.01	1.01	57.46	0.98	—	—	—	—	—	0.10[d]

TABLE 1 (*cont'd*)

		(1)	(2) Education	(3)	(4)	(5) Health	(6)	(7) Housing & Community Amenities	(8)	(9)	(10) Other Social Services
		Private	Collective	Co/Pr[a]	Private	Collective	Co/Pr[a]	Private	Collective	Co/Pr[a]	Collective
Norway	1970	0.06	1.00	16.66	0.79	0.19	0.24	1.55	0.03	0.02	0.25
000 Kr	1973	0.07	1.48	21.90	1.26	0.33	0.26	1.98	0.03	0.01	0.46
	1975	0.09	2.00	22.34	1.72	0.50	0.29	2.63	0.04	0.01	0.68
Portugal	1970	—	0.34	—	—	0.32	—	—	—	—	0.06[d]
000 Escudos	1973	—	0.59	—	—	0.70	—	—	—	—	0.15[d]
	1975	—	1.41	—	—	1.18	—	—	—	—	0.23[d]
Spain	1970	1.11	0.91	0.82	1.72	1.15	0.67	—	—	—	—
000 Pesetas	1973	1.76	1.68	0.95	3.22	2.23	0.69	—	—	—	—
	1975	2.85	2.32	0.81	4.61	4.11	0.90	—	—	—	—
Sweden	1970	—	1.12	—	0.39	0.97	2.49	2.44	0.10	0.04	0.76
000 Kr	1973	—	1.44	—	0.59	1.43	2.46	3.48	0.09	0.03	1.09
	1975	—	1.85	—	0.69	2.09	2.84	3.60	0.14	0.04	1.52
Un. Kingdom	1970	10.77	32.67	3.03	5.33	32.71	6.14	100.95	4.43	0.04	10.72
£ Sterling	1973	15.92	49.63	3.12	7.80	46.95	6.02	145.18	6.48	0.04	17.26
	1975	21.05	95.19	4.52	10.90	85.88	7.88	217.4	10.61	0.05	33.64
Un. States	1970	60	209	3.48	283	21	0.08	564	25	0.04	66
$	1973	77	284	3.68	388	28	0.07	726	32	0.04	98
	1975	88	359	4.09	493	31	0.06	894	44	0.05	140
Australia[e]	1970	14	81	5.95	97	45	0.47	253	3.0	0.01	20
$ (A)	1973	16	144	9.09	138	78	0.56	354	6.7	0.02	33
	1975	16	257	15.92	187	172	0.92	513	13.3	0.03	56

Source: UN *Yearbook of National Accounts Statistics*, except for figures marked *.
*Figures not given in *National Accounts Yearbook*, and taken instead from ICP.
[a]Ratios of collective to private consumption, calculated from unrounded figures.
[b]IPC gives a considerably smaller figure for private health expenditure.
[c]IPC gives a much larger figure for private health expenditure.
[d]Social Security only.
[e]Year beginning 1 July of year shown.

4. Housing and community amenities (including rent subsidies).[15]
5. Other community and social services (including provision and upkeep of parks, libraries, museums, theatres etc. and contributions to orchestras, religious organizations etc.).

It will be seen from Table 1, as might be expected, that education is almost everywhere by far the largest item of collective consumption, generally followed by health services. Naturally, the size of the figure depends on the system of provision, especially for medical services. Thus the figure for health is relatively high in Austria, Denmark, Finland, Sweden and the United Kingdom where the service is directly financed by government with small or no payments being made by the customers (except out of taxes). In other countries, such as France and the Netherlands, the figure of collective consumption for health is very small, since the customers generally pay and are subsequently reimbursed from public funds (the reimbursements being a transfer payment); in these cases, the expenditure is included in private consumption. The data on forms of collective consumption other than education and health are rather small in most—but not all—of the few countries which provide figures.

The question of what should be included as collective additions to private consumption is in itself highly controversial. For example, it might be thought justifiable to add subsidies to agriculture, industry or services which reduce the costs to the consumers of the products involved. And expenditure by enterprises on consumption-type goods and services to their employees or to the public at large might also be added; but the amount of information available is very limited.

Another question of principle is that of the valuation of household expenditure. The French and Belgian studies quoted above rightly value private consumption at *factor cost* for comparison with collective consumption (which is normally valued at factor cost). Here, market prices are used for lack of information on the factor cost of private expenditure by category.[16]

In several cases in Table 1 some gaps in the UN Yearbook are filled by the corresponding figures from the ICP where they are available and appear comparable. These figures are marked with a *. (One may hope that the national statistical offices which were able to make reasonable estimates for the ICP will soon be able to fill the gaps in the Yearbook).

Perhaps the striking feature of Table 1 is the large number of cells which had to be marked — or *, indicating the absence of figures in the Yearbook. In some cases, it is the information about private consumption (notably private expenditure on education and health) that is lacking; more often the gap is due to the absence of appropriate statistics of government expenditure.

In Table 2, the data are shown in the form of the percentages which the various forms of collective consumption shown bear to *total* private consumption on all goods and services. The sum of these percentages (when shown) thus represents the percentage addition to private consumption needed to establish the figures of total consumption of households.

[15]Note that the related private consumption category in the Yearbook includes not only the gross rents but also fuel and power.

[16]The ICP uses market prices which are more appropriate for the main purpose of comparing purchasing power.

TABLE 2

COLLECTIVE CONSUMPTION AS PERCENTAGE OF TOTAL PRIVATE CONSUMPTION[a]

		Collective Consumption on					
		Education	Health	Education plus Health	Other	Total Collective	ICP Collective Consumption as % of Private Consumption
Austria	1970	5.63	6.81	12.44	—	—	—
	1973	6.96	6.70	13.16	—	—	—
Belgium	1970	8.72	2.74*	11.46	1.11[b]	—	12.1
	1973	9.47	2.13*	11.60	1.74[b]	—	13.0
	1975	11.08	—	—	2.45[b]	—	—
Denmark	1970	7.88	6.40	14.28	—	—	—
	1973	8.75	7.91	16.66	—	—	—
	1975	—	—	—	—	—	—
Finland	1970	9.95	7.47	17.42	—	—	—
	1973	9.77	7.63	17.40	—	—	—
	1975	10.96	8.32	19.28	—	—	—
France	1970	5.99*	0.08*	6.07*	—	—	6.9
	1973	6.15*	0.09*	6.24*	—	—	7.1
	1975	—	—	—	—	—	—
Germany FR	1970	5.20*	1.98*	7.18*	—	—	7.0
	1973	5.90*	2.33*	8.23*	—	—	7.9
	1975	—	—	—	—	—	—
Greece	1970	2.74	1.47	4.21	—	—	—
	1973	2.71	1.55	4.26	—	—	—
	1975	2.61	1.67	4.28	—	—	—
Italy	1970	5.92	1.21	7.13	2.04	9.17	7.2
	1973	7.03	1.17	8.20	2.38	10.58	7.5
	1975	6.54	1.09	7.63	2.08	9.71	—
Netherlands	1970	10.05	0.29*	10.34*	0.93[b]	—	10.4
	1973	10.91	0.35*	11.26*	1.03[b]	—	11.0
	1975	11.25	—	—	1.12[b]	—	—
Norway	1970	8.81	1.68	10.49	2.51	13.00	—
	1973	9.73	2.19	11.92	3.20	15.12	—
	1975	9.88	2.49	12.37	3.60	15.97	—
Portugal	1970	2.19	2.07	4.26	0.40[b]	—	—
	1973	2.45	2.88	5.33	0.63[b]	—	—
Spain	1970	1.77	2.14	3.91	—	—	—
	1973	2.25	2.84	5.09	—	—	—
	1975	2.05	3.65	5.70	—	—	—
Sweden	1970	9.74	8.42	18.16	7.55	25.71	—
	1973	10.11	10.04	20.15	8.33	28.48	—
	1975	10.19	11.50	21.68	9.21	30.89	—
Un. Kingdom	1970	5.06	5.06	10.12	2.35	12.47	14.0
	1973	5.40	5.11	10.51	2.58	13.09	14.7
	1975	7.05	6.36	13.41	3.28	16.69	—
Un. States	1970	6.92	0.71	7.63	3.01	10.64	10.7
	1973	7.35	0.73	8.08	3.37	11.45	—
	1975	7.84	0.68	8.52	4.03	12.55	—

TABLE 2 (*cont'd*)

		Collective Consumption on					ICP Collective Consumption as % of Private Consumption
		Education	Health	Education plus Health	Other	Total Collective	
Australia[c]	1970	5.09	2.84	7.93	1.42	9.35	—
	1973	6.46	2.90	9.36	1.76	11.12	—
	1975	8.35	4.70	13.05	2.25	15.30	—

Source: As for Table 1.
*Figures not given in UN *National Accounts Yearbook*, and taken instead from ICP.
[a]Percentages calculated from unrounded figures.
[b]Social Security only.
[c]Year beginning 1 July of year shown.

To give a better idea of total collective consumption, and also as a check on the Yearbook figures, the last column of Table 2 gives the percentage additions of total collective to total private consumption shown by the ICP for those countries represented in the ICP. The two sets of figures are generally consistent—as indeed they should be since the ICP categories of collective consumption are based upon the SNA classification. The exception is Italy, where the figures of collective consumption on categories other than education and health, especially the figures for "housing and community amenities", appear to have a much wider coverage than the ICP.[17]

The results display a very wide range of percentages of collective consumption—illustrating the inadequacy of the statistics of private consumption as a guide to total household consumption of goods and services. We find (allowing for a small addition for missing data) the following approximate proportions of collective to private consumption (taking 1975, or the latest year shown):

around 30%	Sweden
around 20%	Denmark, Finland
15–20%	Austria, Norway, United Kingdom, Australia
10–15%	Belgium, Netherlands, United States
5–10%	France, FR Germany, Greece, Italy, Portugal, Spain.

Further, the proportions of collective to private consumption tended to increase during the early 1970s,[18] by quite large amounts in Denmark, Finland, Norway, the United Kingdom, the United States and Australia. Part of this increase may of course be the result of a higher rate of inflation (that is, mainly, of pay and of the prices of items bought from the private sector) in government services.[19]

[17]Also the UN Yearbook figures of private expenditure on health for Italy are substantially larger than the ICP figures. In 1970, indeed, the UN Yearbook figure for *private* expenditure on health is identical with the ICP figure of *total* expenditure on health, which seems to imply some misunderstanding somewhere.

[18]The Cao-Pinna/Foulon study also shows significant increases in this proportion in France and Italy, in 1959–69.

[19]Estimates for the U.K. of government expenditure on education and health at constant (1975) prices suggest that the proportions of collective consumption on these services to total private consumption increased in 1970–75 almost as much in real terms as in current values for health services, but only half as much for education.

5. Social Income (Transfers)

As pointed out earlier, collective consumption and transfer payments in cash by government to households (e.g. for scholarships and reimbursement of medical expenses, as well as social security payments for unemployment, sickness, old age etc.), can be regarded as alternative methods of State support to consumption. Collective consumption in the form of direct provision of goods and services, to which the previous section was confined, is a clear addition to private consumption; transfer payments, or social income, represent State financing of private consumption. Judgements about the extent of State support of total consumption must therefore take both forms of assistance into account.

TABLE 3

Social Income: Transfers from General Government to Households as Percentages of Private Consumption

	1970	1973	1975	Types of Transfer Listed[a]
Austria	23.1	23.4	24.7	SS, SA
Belgium	23.4	25.6	30.9	SS, SA, UP
Denmark	19.3	21.8	25.9	SS, SA
Finland	15.4	15.8	17.3	SS, SA
France	28.3	26.1	32.0	SS, SA, UP, NPMI
Germany FR	23.5	24.9	30.2	SS, SA, UP, NPMI
Greece	0.6	0.9	0.8	SS, SA, UP, NPMI
Italy	25[b]	27.6	30.2	[d]
Netherlands	30.5	36.5	42.1	SS, SA, UP, NPMI
Norway	29.9	29.8	29.5	SS, SA, NPMI
Portugal	3.8	5.6	—[c]	SS
Spain	10.4	12.0	12.7[c]	SS, SA, UP
Sweden	22.9	26.5	30.9[c]	SS, SA, UP, NPMI
United Kingdom	14.3[b]	15.4	17.1	[d]
United States	11.8	13.4	16.6	SS, SA
Australia	9.2	11.3	15.3	[d]

Source: As for Table 1.

[a]SS = Social Security benefits; SA = Social assistance grants; UP = Unfunded employee pensions; NPMI = transfers to non-profit making institutions serving households.

[b]Estimated from partial data.

[c]1974.

[d]Comprehensive totals, for these countries only, from UN *National Accounts Yearbook* Table 15, showing transfers according to function (education, health, social security and welfare services, housing and other).

Information on social income, again from the UN *Yearbook of National Accounts Statistics*, is summarized for the same 16 countries in Table 3, and again expressed as a percentage of private consumption. Once more, it must be pointed out that the data in the Yearbook are incomplete, although less so than for collective consumption since the transfer items shown presumably make up most of the total. I might call attention to the very valuable Table 15 in the UN Yearbook in which general government consumption, transfers, subsidies (and also capital formation[20]) are all shown under each category provided by the SNA

[20]The Yearbook information on government capital formation by purpose is too incomplete to allow useful comparisons.

for the purpose classification of government expenditure—*if the table is filled in.* In fact only three of our 16 countries have found it possible to complete this table in full—Italy, the U.K. and Australia; the Netherlands, Portugal and Sweden completed only parts of it. For the other countries, the statistics of transfers were extracted from the Yearbook tables analysing household incomes (Table 8a) or general government expenditure (7a and 14).

Again, we can see very wide variations between countries. Social income is equivalent to as much as 40 percent of private consumption in the Netherlands (1975) and around 30 percent in six others (Belgium, France, FR Germany, Italy, Norway, Sweden); the range of 15–25 percent covers all the remaining countries except for the small percentages in Southern Europe. Like collective consumption, the proportions of social income have tended to increase during the 1970s (Norway being an exception); this increase may of course be due in part to the high levels of unemployment in 1975 but the generally increasing number of old age pensioners is also playing a part.[21]

On the basis of these figures, but again allowing also, rather arbitrarily, for the missing data in Tables 2 and 3, we can very roughly and crudely arrange the 16 countries into three groups under each head, with high, medium and low proportions of collective consumption and of social income to private consumption. One purpose is to see to what extent a low proportion of collective consumption may be offset by a high proportion of social income:

1. *High collective consumption and high social income*: Norway, Sweden.
2. *High collective consumption and medium social income*: Austria, Denmark, Finland, United Kingdom.
3. *Medium collective consumption and high social income*: Belgium, France, Netherlands, Germany.
4. *Medium collective consumption and medium social income*: Italy, United States.
5. *Medium collective consumption and low social income*: Australia.
6. *Low collective consumption and low social income*: Greece, Portugal, Spain.

Thus in only nine of the 16 countries (those in groups 2, 3 and 5 above) can there be said to be a degree of "compensation" between the two variables. In the rest, either policy or social and economic circumstances appear to produce additive rather than offsetting proportions.

6. Paying for State Support of Consumption

We may next look at transfers in the reverse direction—from households to governments, in the form of direct taxes on income and contributions (from employees and employers) to social security. The figures from the UN Yearbook are summarized in Table 4; they are once more expressed as percentages of private consumption for comparison with the figures of collective consumption

[21]The OECD study of *Public Expenditure Trends* (op. cit. Table 13) shows how in the ten years ending in the middle 1960s, the population aged 65 and over was growing in most OECD countries at least twice as fast as total population.

TABLE 4

STATE SUPPORT OF PRIVATE CONSUMPTION, AND HOUSEHOLD CONTRIBUTIONS TO SUPPORT OF THE STATE, BOTH AS PERCENTAGES OF TOTAL PRIVATE CONSUMPTION, 1975

	Collective Consumption						
	Education and Health	Other	Total	Social Income	Direct Taxes	Social Security Contributions	Total
Austria	13.2[a]	—	—	23.4[a]	19.9	16.3	36.2
Belgium	11.6[a]	—	13.0[c]	30.9	21.6	20.4	42.1
Denmark	16.7[a]	—	—	25.9	43.2	1.4	44.6
Finland	19.3	—	—	17.3	30.5[b]	10.3[b]	40.8[b]
France	6.2[a]	—	7.1[c]	32.0	8.0	23.6	31.6
Germany FR	8.2[a]	—	7.9[c]	30.2	18.7	22.5	41.2
Greece	4.3	—	—	0.8	(2.5)[d]	9.7	(12)
Italy	7.6	2.1	9.7	30.2	5.6	12.6	18.2
Netherlands	11.3[a]	—	11.0[c]	42.1	22.6	32.2	54.8
Norway	12.4	3.6	16.0	29.5	(15.0)[d]	25.0	(40.0)
Portugal	5.3[a]	—	—	5.6[b]	—	(2)[b]	—
Spain	5.2	—	—	12.7[b]	2.5[b]	12.3[b]	11.7[b]
Sweden	20.4	8.6	29.1	30.9[b]	37.0[b]	19.4[b]	56.5[b]
United Kingdom	13.4	3.3	16.7	17.1	24.0	10.8	34.8
United States	8.5	4.0	12.5	16.6	15.1	11.2	26.4
Australia	13.1	2.2	15.3	15.3	22.2	—	—

Source: As for Table 1.
[a]1973.
[b]1974.
[c]In absence of complete data, ICP figure for 1973 taken.
[d]Assuming that half of total direct taxes receipts come from household sector.

and social income. It is recognized, of course, that taxes pay for much more than State support of private consumption, and that taxes are also paid on expenditure (contained in our figures of private consumption at market prices).

The range of tax proportions shown is considerably narrower than that for collective consumption or for social income. At the top end it falls outside the range of 30–50 percent only in the Netherlands and Sweden (over 50 percent)—both countries where State support of consumption is particularly high; it is low in Italy where expenditure taxes finance much of the high level of social expenditure, and it is low too in Greece, Portugal and Spain, matching the low level of social expenditure.

7. COLLECTIVE CONSUMPTION AND GDP PER HEAD IN ICP COUNTRIES

Next, we may revert to collective consumption estimates, and examine the ICP data for a wider variety of countries—including some of the OECD countries but also a number of developing countries and Hungary—than those so far covered. In Table 5 are set out the ICP data of collective consumption in 1973 (excluding transfers, with which ICP is not concerned), again expressed as percentages of private consumption; they are compared with the levels of GDP

per head in terms of purchasing power parities as estimated by the ICP.[22] As shown already (Table 2) the ICP estimates are close to those derived above for the ICP countries from the UN Yearbook (except for Italy) when allowance is made for the information missing from the Yearbook.

TABLE 5

COLLECTIVE CONSUMPTION (ICP) AS PERCENTAGE OF PRIVATE CONSUMPTION (SNA) AND GDP PER HEAD, 1973

			Rank Order of Countries, 1973			
			Within Group		For all 16 Countries	
Country Groups	1970	1973	By Collective Consumption per head	By GDP per head	By Collective Consumption per head	By GDP per head
OECD countries						
Belgium	12.1	13.0	2	4	3	4
France	6.9	7.1	8	2	11	2
FR Germany	7.0	7.9	5	3	7	3
Italy	7.2	7.5	6	8	8	8
Netherlands	10.4	11.0	4	5	5	5
United Kingdom	14.0	14.7	1	6	2	6
Japan	6.9	7.2	7	7	9.5	7
United States	10.7	11.6	3	1	4	1
Centrally planned						
Hungary	15.0	15.7	—	—	1	9
Developing countries						
Colombia	4.1	4.5	4	3	13	12
India	2.3	2.2	7	6.5	16	15.5
Iran	4.8	7.2	2	1	9.5	10
Kenya	7.7	6.7	3	6.5	12	15.5
South Korea	3.5	3.2	6	4	15	13
Malaysia	8.5	8.5	1	2	6	11
Philippines	4.2	4.2	5	5	14	14

Source: Kravis *et al.*, op. cit. (ICP) Tables 5.11–5.30 and Table 2.1.

Private consumption calculated from difference shown in ICP between total consumption and collective consumption. Both include consumption of non-profit-making institutions serving households. GDP per head according to ICP (effectively identical with SNA concept, but at purchasing power parities).

From Table 5 we can see the following:

(i) Among the ICP countries collective consumption added in 1973 between 2 percent (India) and 16 percent (Hungary) to private consumption;

(ii) Within OECD countries, however, the range of collective additions to private consumption, in 1973, was much narrower. The biggest proportionate additions were those in the U.K. (15 percent), Belgium (13 percent), the U.S.A., (12 percent) and the Netherlands (11 percent). In this respect—if not in others—

[22]GDP per head is based on the Fisher "ideal" indexes given in the bilateral comparisons between each country and the United States.

these four countries come nearest to the socialist model if that can be exemplified by Hungary. Note, however, that according to Table 2 Denmark, Finland, Norway and probably Austria—all countries outside the ICP list—would also show on a comparable basis about the same proportion of collective consumption as Hungary, or slightly more, while Sweden shows a proportion much higher still. In the other four OECD countries in the ICP—France, FR Germany, Italy and Japan—the collective additions are remarkably close, between 7 and 8 percent.

(iii) Among the developing countries, again, there is a fairly narrow range, just overlapping at the top the lower end of the OECD range. Iran, Kenya and Malaysia show the biggest additions—7 to $8\frac{1}{2}$ percent. In the others—Colombia, India, S. Korea and the Philippines—the collective additions all fall between 2 and $4\frac{1}{2}$ percent. In this respect, our figures (Table 2) for Greece, Portugal and Spain seem roughly within the same range as those for the seven developing countries.

(iv) The changes in the ratio from 1970 to 1973 are practically negligible—trivial increases or no significant change in most of the OECD countries and Hungary. The same applies to the developing countries except for the 2 percent increase in Iran (the main increase here being in higher educational expenditures by the government).

(v) Do the data suggest that the level of real income (or GDP) per head is a significant determinant of the proportionate amount added by collective consumption to private expenditure? Or are political influences more important? The influence of the level of real income can of course be seen in the greater proportion of collective consumption in the developed than in the developing countries, although there is an overlap between the two groups, and although the differences in their collective ratios are small by comparison with the great gap in real income. Within each of the two groups, however, a certain distinction does emerge (see the rank order in Table 5). Among the OECD countries, a certain rank correlation holds, but with three outstanding exceptions: the country with a *low* ratio of collective consumption in relation to its real income standing is France (offset by high transfers); the country with a very high ratio of collective consumption in relation to real income is the United Kingdom (and, to a lesser extent Belgium, Italy and the United States). Among the developing countries, by contrast, the only marked exception to the correlation is Kenya, with high collective consumption in relation to real income. South Korea is slightly out of line in the opposite direction. Thus, for the most part, real income does appear as a determinant of the relative size of collective provision, although the "income elasticity" of collective consumption is pretty low. But the exceptions noted show the importance of the differences in the general orientation of economic and social aims and policies, and of social and political pressures.

8. A Longer-Term View for the United Kingdom

For the United Kingdom, we have a regular analysis of general government expenditure going back for over 20 years. This can be used to indicate the effect of substituting total household consumption for private consumption. Here are the figures from 1960 expressed in *constant* prices and as annual rates:

U.K. Annual rate of increase 1960–77

Collective consumption	3.9%
Private consumption	1.9%
Total household consumption	2.2%

Source: U.K. CSO *National Income and Expenditure* 1967–77 (Tables 4.9, 4.10, 9.3 and 9.4) and 1971 (corresponding tables).

Notes:

1. The following services (not quite identical with those used elsewhere in this paper) are included as collective consumption: Education, National Health Service, school meals etc., personal social services, social security (management), housing (mainly subsidies), public health services, parks etc. libraries, museums etc.

2. Data in constant prices (1963 prices for 1960–70, 1975 prices thereafter) are given in the source only for Education and National Health Service (which make up three quarters of total collective consumption); the same deflator is applied to the other services.

The differences between annual rates of increase are small but not insignificant. And it may be noted that collective consumption as a proportion of private consumption increased from 11 percent in 1960 to 20 percent in 1977.

A similar analysis for 1970–77 shows a more dramatic difference:

U.K. Annual rate of increase 1970–77

Collective consumption	4.6%
Private consumption	1.2%
Total household consumption	1.9%

(Sources and notes as for text-table above)

Certainly in these years of slow growth of output and household incomes in real terms, the rate of increase of total household consumption shows a quite different picture from that for private consumption alone.