8

SOCIAL ACCOUNTING IN EASTERN EUROPE[1]

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I. THE LACK OF UP-TO-DATE FIGURES

THE first thing that it is necessary for anyone writing on this subject to say is that during the last few years extraordinarily few statistics in the field of income and expenditure have been published in any of the countries covered by this paper.[2] Almost all those which have come to my notice are brought together in a recent publication of the Economic Commission for Europe.[3] They comprise estimates of the national product at constant prices of each of the Popular Democracies in a pre-war year and each[4] of the years 1947 to 1951[5], together with a breakdown by industrial origin, and estimates of gross investment (and its distribution by broad sectors) in the post-war years, also at constant prices.

Apart from these figures all that are available for the Popular Democracies are the figures of government revenue and expenditure (naturally at current prices) published annually on the occasion of the voting of the Budget.

In particular, the following figures are conspicuous by their absence: estimates of national income or gross national product at current prices, estimates of personal consumption at either current or constant prices, estimates of the balance of payments, the figures of the value or the volume of commodity exports and imports, estimates of changes in the terms of trade, indices of retail prices or wage-rates.

[1] I should like to express my gratitude to my colleagues, Mr. M. C. Kasor and Mr. R. P. Nötel, for help in the preparation of this paper. It would be dishonest not to make it quite clear that I am too linguistically incompetent to have read at first-hand most of the works to which I refer and which they translated to me and explained. For the views expressed in the paper and the evident signs of haste in its preparation I must, of course, accept full responsibility.

[2] For the purposes of this paper Eastern Europe consists of the 'Popular Democracies' (Bulgaria, Czechoslovakia, Hungary, Poland and Rumania and in addition Yugoslavia, where income concepts remain very similar to those in use in the first group of countries even though institutions, policies and attitude to publication of figures have become different.

[3] *Economic Survey of Europe since the War*, Economic Commission for Europe, Geneva, 1953, Tables 7 and 8. For convenience, these are copied in Appendix I of this paper.

[4] In the case of Rumania, however, all that is available for any year since 1948 is a very round figure representing what income was planned to be in 1950.

[5] In most cases estimates of the volume of national income and investment in 1952 have since become available.

In Yugoslavia the situation has for some years been steadily improving: regular figures of international commodity trade are published, estimates of the balance of payments are available, indices of retail prices are regularly issued, estimates of national income and of the allocation of resources at constant prices have been recently released.

Anyone who wishes to write about the money flows in the other economies, however, still has to do it without benefit of figures: official secretiveness makes it impossible for him to put any meat on the few dry bones of theory which occasional articles in the economic journals give.

Even such information as is available on the volume of income is manifestly unsatisfactory because of uncertainty as to the exact coverage of the figures and their comparability with estimates for earlier years. This uncertainty arises because there is no systematic publication of comparable series in sober statistical year-books or digests carefully footnoted and with appendices containing definitions. Almost always such statistics as are released are published with a purpose – to illustrate progress in one field or to draw attention to backslidings in another field. Often these statistics (usually expressed as a percentage increase on some other figure, itself frequently unknown) relate to periods so recently ended that they can hardly in the nature of things be more than rough preliminary estimates. Later revisions are never explicitly made public: when apparently conflicting estimates make their way into print, it is hardly ever clear whether they represent revisions of early estimates or relate to some slightly different concept.[1] Some idea of the confusion this creates for the earnest student can be obtained by imagining the difficulties one would find in reconstructing the national accounts of, say, the United Kingdom if all one had to go on were the annual forecasts of Government revenue and expenditure, the Chancellor of the Exchequer's Budget Speech and occasional vague mentions in ministers' week-end speeches of the (supposed) increase in industrial production last week and of the spurt in exports which the current month's trade returns are expected to show.

[1] Thus, even the highly condensed explanations of the derivation of the figures published in the E.C.E. *Survey* given in the Appendix to that document (pp. 363–4) list a strange diversity of sources and betray an unusual hesitancy.

II. PRE-WAR ESTIMATES

It is hardly necessary to explain to this audience that this blanket of the dark is a creation of the last few years only. Up to about 1949 there was a considerable flow of economic statistics from Eastern Europe. On the whole, indeed, more information was forthcoming than had been the case before the war. All the countries of Eastern Europe published well-documented estimates of and targets for national income in the early post-war years. There was, moreover, a conscious attempt to relate these to the estimates made in the pre-war years by individual scholars.

There had been a number of these early estimates. Indeed to one familiar only with the early calculations of the English-speaking countries the richness of the early twentieth-century literature on the subject in the various Eastern European countries has come as something of a surprise. Thus, an estimate of the national income of Bulgaria was made before the First World War,[1] a calculation for the Austro-Hungarian Empire was published in 1917,[2] an official estimate for the newly formed Kingdom of Yugoslavia was prayed in aid of his tax policy by the Minister of Finance as early as 1920.[3] These early estimates were followed up by others in the late 'thirties and during the war.[4]

[1] Kiril Popov, *Stopanska Bulgariva za Godinite 1892 i 1911* (The Bulgarian Economy in 1892 and 1911). This was followed by Dr. A. Chakalov's first study of national income *Spisanie na Bulgarsko Ikonomichesko Druzhestvo* (The Bulgarian Economic Community), 1929, Book III of which gives estimates of the national income in 1911 and 1926.

[2] Friedrich von Fellner, *Das Volkseinkommen Österreichs und Ungarns*, 1917.

[3] Kosta Stojanović, in his Budget Statement for 1920–1. (He was criticised for overvaluing the various components of national product in order to support his tax proposals.) Earlier estimates for Serbia were those of Mulhall (in 1896) and of the Serbian Central Committee led by Professor Milić Radanović in Geneva (in 1918). An account of this last estimate is given in *Nahsa Narodna Privreda* (Our National Income), Serajevo, 1927, the principal pre-war study by five statisticians, V. M. Djuričić, M. B. Tošić, A. Vegner, P. Rudčhenko and M. P. Djordjevic.

[4] Examples are: Mathias Matolocsy and Stephen Varga, *The National Income of Hungary, 1924/25–1936/37*, London, 1938; Petyniak-Sanecki's estimate for Poland in 1938 in *Wspolczesne zagadnienia gospodarcze* (Contemporary Economic Problems), Part II, Lwów, 1939; A. Chakalov, *Natsionslnyat Dokhod na Bulgariya* (The National Income of Bulgaria), which gives an estimate for 1937; and M. Georgescu's calculations for Rumania, Vol. IV, pp. 941 *et seq.* (This calculation deserves special mention as one of the first in Eastern Europe to make use of both of the output approach and an income approach based on tax returns. It is notable also for the extraordinarily detailed estimates of the output and input of animal manure.)

In general, the pre-war calculations lacked operational significance. They were, with only one exception, estimates by private scholars who would have been astonished if governments had based, or attempted to base, policies on the results of their computations. They were usually, like the contemporary Western estimates, published considerably after the years to which the calculations related. In none of them was there any attempt to construct an interlocking model of the economy.[1]

The main thing which differentiated them from the classical estimates made in England was that they were all based on what was then termed the 'objective' method. That is, they consisted in the summation of the net outputs of the various industries of the country. As is well known, apart from the pioneer effort of Flux, the contemporary English and American estimates used the so-called 'subjective' method: that is, they were made from the side of personal (and corporate) incomes, mainly based on tax assessments. As will be seen, this difference has persisted up to the present day.

The conceptual discrepancies between various estimates were about comparable with the relatively small differences which excited economists in other countries. All the calculations were quite explicitly based on what would now be loosely termed 'the' Western definition of national income.[2]

The first post-war estimates in most of these countries[3] continued to follow the old lines and indeed in some countries there was really no break between the early post-war figures and the series generally accepted before. This was so in Hungary where the post-war figures were until 1949 linked to the old Matolcsy-Varga estimates,[4] in Poland until 1948, and in Czechoslovakia[5] until 1949. In Bulgaria there were three stages: at first

[1] Matolocsy and Varga, however, like Colin Clark, produced estimates of both product and expenditure.

[2] In general the practice was to measure income at factor cost. Matolcsy and Varga, however, gave estimates at both factor cost and market prices, and even went so far as to give two estimates of the volume of commodity production, the one weighted by factor costs and the other by market prices.

[3] Yugoslavia appears to be the only country where the Marxist definition was adopted from the start.

[4] See *Gazdaságstatisitikai Tájékoztato*, 1947, No. 6 pp. 273–274, and *Jelentés a Hàroméves Terv, Elso Évérol*, 1st August, 1947–31st July, 1948, p. 188, Budapest, 1948.

[5] See Milos Stádník, *Narodnï Dûchod a jeho rozdèleni* (National Income and its Distribution), Prague, 1946.

'bourgeois' definitions were uninhibitedly used,[1] very soon afterwards a study was published which in effect represented a compromise between 'bourgeois' and Marxist concepts,[2] finally, the Marxist definition was adopted.

III. THE MARXIST CONCEPT OF NATIONAL INCOME[3]

In principle 'national income' includes only incomes generated in the process of material production. The incomes of those who do not take part in material production are regarded in exactly the same way as, for example, old age pensions are in Western countries – as created by the efforts of others and merely transferred to the ultimate recipients. Marxist theory thus enlarges the category of transfer income to the same extent as it restricts the category of production incomes.

In practice, the extent of the difference is much less than might at first be imagined. For 'material production' is currently

[1] See *Le Revenu National en Bulgarie, 1936–1945*, Haute Chambre d'Economie Nationale, Sofia, 1947, written (though without any attribution in the text) by A. Kamilev.

[2] P. Kiranov, *Le Revenu National en Bulgaria*, 1939–1944/45, Sofia, 1946. Dr. Kiranov had already published one study of national income in the years 1929–32 (see *Stopanski Izvestiva* No. 12, 1934). In his post-war study he includes services in the national income, but follows the pre-war Yugoslav statisticians in distinguishing sharply 'primary' income from 'secondary' income (rent, interest, income from credit, insurance and the free professions, civil service salaries and transfer incomes in the western sense'.

[3] Discussions of the concepts and methodology of the national income calculations currently made can be found in the literature of most, probably all, of these countries.

A rather full account has recently been published in Yugoslavia by the Savezni Zavod za Statistikn i Evidenciju (Federal Board for Statistics and Documentation): *Metodologija za Obracun Narodnog Dohotka u 1952 Godini* (Methodology for the Calculation of the National Income in 1952), Belgrade, 1953.

Bulgarian practice is described in Khristo Popov, *Sushchnost, Metodologiya i Izchislenie na Narodniva Dokhod* (The Concept, Methodology and Calculation of the National Income), Sofia, 1951. In this work the definitions now in use are applied retrospectively to calculations covering the years 1926–48.

Articles on Czech practice appeared in *Průmyslový Vestnik* (National Income and Productive Labour) by Dr. Jaroslov Krejci, No. 45, 1939, and *Hospodar* (The Financial Past and Present) by the Deputy Minister of Finance, Dr. Bedrich Spacil, No. 14, 1950.

The most satisfying account for an Eastern European country, however, is probably still that given in *The National Income of Poland, 1947*, Chief Statistical Office, Warsaw, 1949. This has the advantage that it explains rather frankly how the estimates for the private sector were made and is not afraid to comment on their reliability. A more recent, but very short, account can be found in an article in German by Professor Dr. Romanink, *Hauptgrundsätze der Volkseinkommensberechnung in Polen*, Statistische Praxis, No. 6, 1953, pp. 93–94.

It is probably unnecessary to add that all this literature leans very heavily on the theory and practice developed earlier in the Soviet Union and discussed in a number of well-known articles easily accessible to western scholars.

interpreted in a very wide sense. It includes not only those outside services to commodity-producing enterprises which are, as it is said, 'crystallized in real (i.e. material) products'[1] – goods transport, those sections of the communications industries and credit institutions which service branches of commodity-producing industries, wholesale and retail distribution[2] and catering – and a number of services which can by no stretching of language be brought under this heading – passenger transport, communications serving final consumers, laundries and other services 'within the scope of commercial economy'.[3]

The only services excluded, therefore, are personal services 'outside the scope of commercial economy' and the services of the government administration itself.

It is obvious that the scope of the excluded categories could be reduced at will, without any change in logic. Thus, the whole State machine could be made to 'wither away', merely by imputing the services of the various ministries in more or less arbitrary proportions to the various commodity-producing industries. Some progress has undoubtedly been made in this direction,[4] but there has been no attempt to allocate the services of the armed forces or of the hard core of the bureaucracy, which thus remain outside the national income.

In the case of personal services it would be equally easy to bring them all formally 'within the scope of the commercial

[1] *The National Income of Poland, 1947, op. cit.*, quotes on this point one of the basic works on Soviet national income, I. M. Krasnolobov, *Planirovanye i uchet narodnogo dochoda* (Planning and Accounting the National Income), Moscow.

[2] A *curiosum* may be noted here. In the official calculations of the Polish national income the statisticians took the trouble to estimate how much of the net margin of private trade (after deducting costs of materials) was not factor income earned in storing and handling goods on their way from factory to consumer but was income 'appropriated' (as distinct from earned). But instead of excluding this 'appropriated product' from the national income they preferred to include it, with, however, a footnote to indicate that it was wrongly classified – it appeared under trade but should have been *added* to the product of industry. This seems a fairly clear departure from Marxian principles, but would have the advantage that it would avoid a sharp break in the continuity of the series should there be, in later years, a socialization of trade (and thus, by definition, an elimination of 'exploitation') without a change in trade margins.

[3] See Krasnolobov, *op. cit.*

[4] In the Soviet Union, administrators working for industrial 'trusts' are regarded as contributing to the national income, but the services of the employees of the ministries which supervise the trusts are excluded (cf. *Vestnik Statistiki*, Journal of the Central Statistical Administration of the U.S.S.R., No. 5, 1952, p. 71). Thus, just as in bourgeois economies a man who gives his housekeeper the formal status of wife thereby reduces the national income, so does a minister who breaks up his department and raises his 'trust' managers to the status of ministers.

economy'. In practice, the coverage of the excluded classes would seem to differ somewhat from country to country: thus, photographers do not contribute to the national income in Yugoslavia but do, as material production, in the U.S.S.R. and probably the other Eastern European countries.[1] Those certainly excluded everywhere are doctors, teachers, lawyers, artists and domestic servants – not at all a homogenous group, covering as they do, a large number of State employees for whom a considerable quantity of capital (in the shape of school buildings, books, apparatus, etc.) is provided as well as the few remaining individuals who live literally by their wits or their hands.

It is, therefore, not easy to defend the current methodology on logical grounds. On the one hand, it appears to have something in common with that advocated by Professor Kuznets at an earlier meeting of this Association: the Marxists do as he would have us all do in excluding from the national income a part of the overhead cost of running the economy. But it is to be feared that this is merely due to a hangover of past dogmas which could be circumnavigated only by a series of tedious imputations.[2] On the other hand, it excludes also the more, as well as the less, attractive kind of tertiary production. Teachers who improve the human capital and so make possible future rises in productivity, opera singers who make one glow with a pure gem-like flame – all, all are gone, the old familiar faces. The

[1] In Poland, in recent years, urban passenger transport has been included in the national income, rural transport excluded. The logic of this appears to be that travel to and from work (which is what urban transport consists of in the main) can be regarded as 'crystallized' in the material output of the travellers, whereas pleasure travel (to which rural transport is a statistical approximation) cannot. Thus, the Polish statisticians include what Professor Kuznets would wish to exclude as a social overhead and exclude what he would wish to include as a net contribution to welfare.

[2] It is strange that the neo-Marxist economists should have been unwilling to follow the same logic in their treatment of the State's services as they have followed in their treatment of incomes from trade. Marx regarded the profits of traders as arising mainly from 'speculation' (i.e. appropriated from the industrial workers) and only secondarily from the productive services involved in storing goods on their way from the factory to the consumer. Neo-Marxist practice is to include the whole income of those engaged in trade in the national income on the ground that in a socialist society there is no opportunity for 'speculation' or 'exploitation'. By parity of reasoning it would seem that the services of the latter-day socialist state should be regarded equally differently from those of the organ of class repression which Marx conceived the 'bourgeois' state of his day to be. It is difficult to believe that the reason for this disparity in logic is not due to a difficulty in reconciling the simultaneous existence of a belief in state services which are not allocated to particular industries with a belief in the ultimate withering away of the State.

criteria adopted thus have very little to do with welfare.

This last exclusion could be defended if it were accepted – as sometimes seems to be the case – that the goods and services produced in an economy should be classified under three heads: those needed to maintain capital (including human capital) intact – i.e. subsistence wages[1] and depreciation; those used for accumulation (not investment); and those serving neither 'simple reproduction' nor accumulation. But then strict logic would imply the inclusion in this third category of a number of commodities which serve mainly as examples of the ignoble motives associated with Veblen or Duesenberry as well as personal services.

IV. A DIGRESSION ON THE PRINCIPLES OF DEFINITION OF NATIONAL INCOME

If, however, the Marxists would forget some of their dogmas and hold hard to a principle which they in fact accept but do not always apply consistently, the attitudes to national income estimations which they then could have would be, as it seems to me, worthy of acceptance by other countries.

The principle, pompously stated, is this: the national income should be so defined that it is co-extensive with the most all-inclusive aggregate which it is the generally accepted object of policy to maximize. Some intelligent Eastern European economists justify their own definition on this ground. The Bulgarian economist, Kiranov, for example, writes[2]: 'For Bulgaria, a poor country, it is important to establish the volume [of income] which can serve as a basing-point for the development of the economy'. The clear implication of this is that it is unnecessary, and may even be positively misleading, to have the same definition of national income in countries at different stages of development. That, however useful it may be to include all services in developed or hyper-developed economies, in Bulgaria (or Nigeria) one can afford to neglect a whole lot of services, whether they are performed in the family circle or for money consideration, because they are a function of poverty and lack of opportunity to do anything else, and also, one might add, because, being almost one hundred per cent labour-intensive,

[1] Marx admits that the concepts of subsistence vary from country to country and from time to time, so that even by his principles there should evidently be a gradual shift of goods and services from one category to another.

[2] P. Kiranov, *Le Revenu National en Bulgarie, 1939–1944/45*, Sofia, 1946.

they do not make any demands on the resources allocated or available for investment. More than this, it is indeed implied that the movement in an index of income which includes all tertiary production will actually give a misleading picture of the progress of a developing but still underdeveloped economy.[1]

The common sense of this approach seems to me more attractive than the misguidedly monist attitude of those who go to underdeveloped territories with a set determination to include the same types of imputed income as have proved their usefulness in developed economies.[2] But, of course, the Marxists are in fact as monist as their bourgeois brethren. Roughly the same lines of demarcation are drawn between 'created' income and transferred income in the relatively developed Czechoslovakia as in the mainly agrarian Bulgaria. And though in all cases the trader, at any rate when socialized, has been admitted into the Kingdom of Heaven the eye of the needle has not widened sufficiently to let the State camel through.

V. THE PRACTICAL DIFFERENCE IN COVERAGE

However, this was a digression. In actual fact the difference of coverage as between the two competing concepts of income is not of great importance. In Poland the official statisticians estimated[3] that the services 'wrongly' included by Petyniak-Sanecki in his pre-war estimate of the national income of Poland in 1937 amounted to about 10 per cent of his total. In Yugoslavia an American mission in 1952 concluded,[4] with the agreement of the Yugoslav Government statisticians, that about 10 per cent would have to be added in order to adjust the official estimate of gross national product to the definition of the O.E.E.C. Standardized System. Similarly, Soviet statisticians striving to adjust the conventional estimate of the United States national income to their own definitions were able to eliminate only 15 per cent.[5]

[1] It is by now well known that Colin Clark's famous generalisation about the tendency for the proportion of total resources devoted to tertiary production to increase as total resources increase applies only when a certain stage of development has been reached; that, in fact, this proportion, if plotted against income (bourgeois definition), is bimodally distributed.

[2] And even, tell it not in Gath, types of imputed income unheard of in Europe.

[3] *The National Income of Poland, 1947*, p. 1.

[4] Unpublished report by Dr. P. G. Hermberg.

[5] Admittedly this was a calculation for a war year (1943). See The National Income of the Soviet Union, by A. T. Petrov, Statisztikai Szemle, 1950, No. 6–7, p. 293.

VI. THE VALUATION OF NATIONAL PRODUCT

One further conceptual difference should be mentioned. In the Western world it is usual to value the national product at which is called, in a somewhat question-begging way, 'factor cost'. The idea underlying this practice is that distortions introduced into competitive pricing by monopoly should be eliminated. In reality, as we all know, only the distortions due to the activity of the State are eliminated, and, in point of fact, only those associated with taxes (positive and negative) assessed on sales proceeds and not those subtler distortions brought by taxes on income or capital. Private quasi-rents are cheerfully treated as rewards of factors of production, mainly because of the statistical difficulty of disentangling them from 'normal' factor rewards but also partly because to do this disentangling would imply a criticism of existing institutional arrangements.

In an economy where public monopoly is the rule this distinction between the 'distorting' influence of the State and that of monopolistic enterprises clearly breaks down: there would be little point in distinguishing between the profits which enterprises are allowed to retain, the profit contributions which they make to the central government's revenues and the turnover taxes levied on their output or sales. The choice is therefore really between excluding all the profits and taxes of enterprises classified as engaged in 'material production' and including the whole lot. In all the Eastern countries, as earlier in the Soviet Union, the second alternative has been preferred.

The national income is thus a measure of the net output of 'material production' valued at market prices. The formal relations between this concept (and the corresponding income and expenditure aggregates implied) and the concepts employed in Western social accounting are set out in Table I.

VII. THE MAGNITUDE FOR WHICH FIGURES ARE PUBLISHED

I know, however, of no case where all, or even most, of the entries in even the upper part of this table can be filled in, either at current or at constant prices.

The magnitudes on which attention is generally focused, in both plans and plan fulfilment reports, are these:

(*a*) Gross output of manufacturing and mining at planned prices, including indirect taxes but, more important, *including duplication.*

That is, the figures published which are generally split between heavy and light industry, are essentially figures of gross turnover.

(*b*) National income (net of depreciation) at constant prices and the percentage contribution of manufacturing and mining.

Such estimates of the share contributed by industry are, however, difficult to interpret because of a steady widening of the coverage of the term 'industry' as activities formerly carried on by farmers or handicraftsmen get transferred to industry (e.g. butter-making, tailoring).

(*c*) The proportion of the national income 'devoted to satisfying the private needs of the population, to providing social and cultural facilities and to meeting other social needs' as distinct from what was 'spent on the expansion of production'.[1]

The composition of these two proportions, as will be seen, is not defined with crystal clarity. The outsider can only say, with W. S. Gilbert:

'Which was which he could never make out
Despite his best endeavour.
Of *that* there is no possible doubt,
No possible doubt whatever'.

It is certain that the first category includes all personal expenditure on goods and on services 'within the scope of the national economy', certain, too, that it includes government expenditure on goods for current consumption and on communally provided services. But how much defence expenditure is included under this rubric and how much treated as net investment is unknown.

(*d*) The volume and value of gross investment.

(*e*) The total volume of sales *of goods* by the State retail network.

This is, of course, narrower in scope than the estimates of personal consumption conventionally used in Western countries for two reasons: it excludes personal service and it excludes consumption of their own output by peasants.[2] On the other

[1] See, for example, the Report of the Hungarian Central Statistical Office on the execution of the five-year economic plan during the first quarter of 1953 (Szabad Nép, 7th April, 1953).

[2] It also excludes sales of goods by private traders. These, however, by now represent only a tiny fraction of the total.

TABLE I

Product	*Income*	*Expenditure*
Gross output (including indirect taxes), free of duplication, of: Manufacturing and mining Handicrafts Building Agriculture Forestry Transport and communications Trade Catering Other services 'within the communal economy' (laundries, etc.)	Wages of 'productive' workers employed in the socialized sector Incomes of members of co-operatives Earnings in cash and kind of peasants Turnover tax on goods Profit contributions of socialized sector to State Retained profits of socialized enterprises engaged in 'material production' Incomes of those engaged in handicrafts or private transport	Personal expenditure on goods and on transport, communications, laundries and other services 'within the communal economy' Expenditure on goods of enterprises providing personal services outside the scope of the national economy Government expenditure on goods for current consumption Gross investment (including excess of commodity exports over commodity imports)
Gross national product (Marxist) Net output, free of duplication, but including indirect taxes, of: Enterprises and individuals supplying personal services to other enterprises, persons and the State	National income (Marxist) Depreciation Wages and salaries of civil servants Pay, in cash and in kind, of the armed forces Incomes of the free professions, domestic servante and others providing more or less pure personal services Turnover tax on personal services	Gross national expenditure (Marxist) Personal expenditure on pure services with no goods content Expenditure on services of enterprises providing personal services outside the scope of the national economy Government expenditure on personal services
Gross national product (bourgeois)	Gross national income (bourgeois)	Gross national expenditure at market prices (bourgeois)

hand, it includes some sales which would be regarded as sales of intermediate goods in Western countries – purchases of tools, etc., by handicraftsmen and peasants.

(*f*) The proportion of national income generated in the socialist sector.

VIII. THE OPERATIONAL SIGNIFICANCE OF THESE MAGNITUDES

The reason for concentration on these particular magnitudes is easy to explain. The primary interests of all the Eastern European governments have been in investment and productivity. There has, indeed, been a more than slight tendency to think of the consumption fund merely as an input necessary in order to make possible the maintenance of capital (including human capital) and further accumulation. This springs mainly, doubtless, from the determination to develop the economy: any planner eager to strengthen and diversify the base of an economy is bound to be tempted occasionally to think of the immediate increase in consumption demanded by those who are transferred from agriculture to industry as a 'leakage' slowing down the pace of development. But it is bound to be accentuated if one is accustomed to think of the economic process in Marxist terms, where 'simple reproduction' is contrasted with 'accumulation'.[1]

It must be supposed, therefore, that planning proceeds in these countries somewhat as follows. A target for the total industrial output of goods (and of services making demands on goods-producing industries) in a particular year is set after consideration of the reserves of under-employed labour in agriculture and the private service trades and of recent experience in raising the average level of productivity. This target must in the end demand an arbitrary decision. Once chosen, however, it implies something fairly definite about both the size and the composition of the investment programme needed to make it possible. This in turn can be translated into demands for producer goods from particular industries. Similarly the size of each industry's output can be estimated from projections of the distribution of the labour force and the supply of raw materials.

[1] The conception of consumption as an input need not betray a callous attitude to demands for rises in the standard of living: Marx, after all, recognized that conceptions of what was adequate for subsistence varied from country to country and from time to time.

The proportion of each industry's output which can be devoted to consumption thus emerges, in the first instance, as a residual. Once this residual has been broken down between commodities each enterprise can be set a target for its total output, on the assumption that its inputs will be of such and such a magnitude.

Two differences between this (highly idealized) picture and that to which we have become accustomed in the semi-planned economies of the West are immediately obvious. First, most of the calculations can be made in physical units and in those which cannot planned prices can be safely used: there is little need to worry about autonomous movements in prices and wages, because even an unplanned transfer of purchasing power to the private sector (in practice, to peasants) cannot set off a cumulative inflationary process, because of the centralization of investment decisions. Second, the planning proceeds down to the level of the individual enterprise in the socialized sector (which covers the vast bulk of industry and trade), so that a more or less precise set of targets can be set for each producing unit.

It follows from this that one should not be too surprised or suspicious at the absence of published estimates of money flows in these countries: controls are exerted at so many points in the system that the money flows are genuinely operationally less interesting than in economies where individual bargaining power counts for more. The models with which the Eastern planners work are thus likely to approximate more to the Leontief type than to the social accounting type which we associate with the name of Stone. Consumers' functions can hardly be expected to find a place. Input-output relations, on the other hand, are the nub of the system.

But even the analogy with Leontief's model must not be pressed too far. In Western input-output models only the stage of inter-industry relations is reached, in which each industry is, except in cases of pure monopoly, a hotch-potch of firms of varying efficiency. In countries where almost all industrial enterprises are socialized it is possible, however, to study the relations between comparable enterprises and the industries supplying their input. That this is done rather systematically is clear from the stress laid in recent plans on the need for each enterprise not only to fulfil its output plan but also to reach certain prescribed efficiency norms – productivity per man, the ratio of the input of particular raw materials to the output of particular finished goods, the ratio of stocks of materials to finished output, and so on. These are presumably set by reference to the actual performance of the more efficient firms in some past period.

I conclude, therefore, that, although the planning authorities in Eastern European countries undoubtedly have all the information needed to provide a rather exact matrix of inter-industry relations, the primary interest of the accounting figures *submitted in standardized form to the planning authorities* lies not so much in their usefulness as building bricks in the compilation of aggregates free of duplication as in the indication which they give as to whether particular enterprises are fulfilling their plan or not. In a sense, the operationally most relevant aggregates are those laid down for further periods in the successive plans. Or, if you like, it is unnecessary for a planner to have a duplication-free estimate of the national income as long as he knows how many, and which, enterprises are fulfilling or falling short of their gross output plans.

IX. THE MONEY BALANCE

I have stressed that the Eastern planners are spared some of the preoccupation with those monetary considerations which loom so large on Western horizons. Essentially, the reason for this is that production decisions in the socialized sector are not, except very remotely, a function of the incomes and income expectations of individuals.

The production targets of each enterprise are laid down first. Only afterwards is the final selling value of that enterprise's output determined. This depends on the distribution of its output (valued at planned producers' prices) between consumer goods on the one hand, and capital goods and intermediate products on the other, and on the rates of turnover tax levied on the consumer goods. These rates can be fixed so that the total selling value of the planned output of all consumer goods shall be equal to the total wage-bill of industry and the total receipts of peasants and members of collective farms.

Obviously there is a number of places where plans may go astray. The output of one type of consumer good – in practice, agricultural produce – may turn out to be less than was planned, and the price of that part of it which is produced outside the socialist sector may accordingly rise. This will result in a transfer of purchasing power from workers to peasants and possibly, if the harvest is very bad and free market prices are very high, some hoarding by peasants. But it need not, because of the centralization of production decisions, lead to any modifications of industrial production plans and indeed is unlikely to do so (except to the extent that the harvest of industrial crops is affected) unless the initial miscalculation has been very large and workers' discontent – manifesting itself in low productivity – correspondingly great. Recent events in Eastern Europe should not blind one to the fact that over a very wide range the distribution resources between consumer goods and other goods can be fixed at will.

This should not be interpreted to mean that Eastern planners neglect to estimate the money flows between the different parts of the system. Even though only the grossest miscalculations can be important enough to hamstring the industrial expansion aimed at it is obviously inconvenient to allow one section of the community to hoard while another, politically more important, section goes short. If it goes on for long enough the overhang of purchasing power can be (and in several cases has been) eliminated by a monetary reform discriminating against particular forms of saving. But this is clearly regarded as a drastic remedy to be used only sparingly.

A recent article in a Hungarian journal[1] throws some light on the way in which the problems of monetary balance are considered. Table II reproduces the table round which the author focuses his discussion.

It will be seen that the scope of the items included is in one respect narrower and in another somewhat wider than that of those covered by the tables of personal income and expenditure conventionally used in Western economies.

Thus, incomes in kind are omitted from both sides of the account. On the other hand, the only pure money incomes included on the receipts side are wages and the incomes of individual members of co-operatives; otherwise all the entries represent estimates of turnover. Similarly, the payments side

[1] Gy. Szönyi, *A lakosság pénzforgalami mérlegének néhány kérdése* (Some Problems of the Monetary Balance of the Population), *Statisztikai Szemle*, No. 11, 1952, p. 951.

includes not only strictly personal money expenditure and saving, but also the expenses of those engaged in the private sector of the economy.

TABLE II

Money Receipts and Payments of the Population

At current prices

Receipts	*Payments*
1. *From the State and Co-operative Sector* (*a*) Wages (*b*) Receipt of members of co-operatives (*c*) Sales by individual peasants (*d*) Sales by private artisans (*e*) Sales by private retailers (*f*) Sales of private transport services (*g*) Pensions, insurance benefits, scholarships, etc. (*h*) Other (lottery winnings, loans, interest, etc.)	4. *To the State and Co-operative Sector* A. Purchases of goods (*a*) For own consumption from: i. Trade network ii. Co-operatives of artisans iii. Other socialist enterprises (*b*) For use in production or resale from: i. Trade network ii. Co-operatives of artisans iii. Other socialist enterprises B. Purchases of services (*a*) Rent (*b*) Transport (*c*) Other C. Financial expenditure (*a*) Taxes and subscriptions to State loans (*b*) Other
2. *From the private sector* (=item 5) (*a*) Wages (*b*) Sales by individual peasants (*c*) Sales by private artisans (*d*) Sales by private retailers (*e*) Sales of private transport services (*f*) Gross receipts of the free professions and others providing personal services	5. *To the private sector* (=item 2) A. Purchases of goods (*a*) For own consumption from: i. Peasants ii. Artisans iii. Private retailers (*b*) For use in production or resale from: i. Peasants ii. Artisans iii. Private artisans B. Purchases of services C. Direct payments of wages
	6. *Net saving* (=item 1−item 4)
3. *Total credits* (=1+2=7)	7. *Total debits* (=4+5+6=3)

In other words, the statistician has avoided the awkward problems involved in estimating expenditure on business expense accounts with which we are all familiar,[1] and so has been able

[1] Business expenses are in fact shown separately in the table, but quite obviously they need not be.

to use estimates of private turnover, rather than estimates of incomes earned in the private sector, which might well be less reliable. As a consequence he has no estimate of private income. But in point of fact it is not at all obvious that he could need it for any operational purpose. Indeed, in order to get an estimate of saving he does not need to know the transactions within the private sector (items 2 and 5 are identically equal) at all. All he needs to do is to extract certain figures of payments and receipts from the books of enterprises in the socialist sector.

X. AN APPEAL TO EASTERN EUROPEAN STATISTICIANS

Throughout this paper I have tried to look at national accounting through Eastern European eyes. I have emphasized that it was quite natural that the breakdown and concepts which are useful in largely socialized economies may very well differ from those that have been found convenient in capitalist economies. I have gone out of my way to find reasons why the particular figures published, though difficult to compare with estimates of similarly styled magnitudes in Western countries, may in fact be operationally of the greatest importance in Eastern Europe.

But in my end I come back to my beginning. My paper has contained no figures, no corroborative detail that could 'add verisimilitude to an otherwise bald and unconvincing narrative'. The reasons for it were quite outside my control.

I find it particularly sad that the Eastern European governments should be so parsimonious in their release of regularly published, carefully defined, systematically presented series in the field of social accounting, for two reasons. In the first place, several of the countries of Eastern Europe were before the war in the van of progress in the field of national income estimation. Secondly, there can be no doubt that technical progress in the construction of national sector accounts has been very fast since the war and little doubt that the Eastern European economists would, if they published their results, have a lot to teach their Western colleagues. At this meeting of technicians it seems fitting to address an appeal to the Eastern governments to allow their statisticians to carry on publicly the glorious tradition of the predecessors on whose pioneer work they have built.

APPENDIX I[1]

TABLE III

National Product in Eastern European Countries by Origin

	Percentages		Billions of national currencies at constant market prices[a]					
	1948	1951	Pre-war[b]	1947[c]	1948[c]	1949	1950	1951
POLAND								
Agriculture and forestry	24.0	19.6	..	3.44	4.33	4.73	5.25	5.09
Industry and handicrafts:								
Producer goods	16.7	22.4	..	2.31	3.00	7.80	10.45	5.81
Consumer goods	27.3	27.3		4.12	4.91			7.09
Building	3.7	8.5	..	0.50	0.67	0.85	1.60	2.21
Transport and communications	9.6	10.5	..	1.35	1.74	2.00	2.40	2.74
Trade and other 'material production'	18.7	11.7	..	3.01	3.37	3.80	3.50	3.04
Total	100.0	100.0	..	14.73	18.02	19.18	23.20	25.98
CZECHOSLOVAKIA								
Agriculture	17.6	15.1	13.1	..	9.9	10.6	11.1	11.8
Industry and handicrafts:								
Producer goods	26.5	28.7	30.0	..	15.0	40.1	41.8	22.4
Consumer goods	35.4	33.8		..	20.0			26.4
Building	6.0	8.5	3.5	..	3.4	4.0	5.4	6.6
Transport and communications	4.7	4.6	1.9	..	2.7	2.9	3.3	3.6
Trade and catering	9.8	9.3	8.0	..	5.5	6.0	6.6	7.3
Total	100.0	100.0	56.5	51.4	56.5	63.6	68.2	78.1
HUNGARY								
Agriculture	26.7	20.1	6.8	4.0	5.1	6.1	6.2	6.9
Industry:								
Producer goods	18.3	28.6	3.0	4.9	3.5	5.2	7.1	9.8
Consumer goods	19.9	19.0	4.8		3.8	5.1	5.8	6.5
Handicrafts	8.9	4.4	2.0	1.4	1.7	2.0	1.7	1.5
Building	2.6	5.8	1.1	0.4	0.5	1.0	1.4	2.0
Transport	3.7	3.5	0.8	0.5	0.7	0.9	1.0	1.2
Trade and indirect taxes	19.9	20.1	4.6	2.8	3.8	5.0	5.8	6.9
Total	100.0	100.0	23.1	14.0	19.1	24.9	28.8	34.3
RUMANIA								
Agriculture	50	33	..	..	..	..	..	..
Industry	..	52	..	..	..	..	..	..
Other	..	15	..	..	..	..	..	..
Total	100	100	626	..	380	..	600[d]	..
BULGARIA								
Total	100.0	100.0	47.2	..	49.1	50.0	57.4	77.9

a. Price bases: 1937 prices for Poland and Czechoslovakia; 1947 Plan prices for Hungary; 31st December 1948 prices for Rumania; and 1939 prices for Bulgaria.
b. 1937 for Czechoslovakia; 1938 for Hungary and Rumania; 1939 for Bulgaria. It is not clear from the sources whether the pre-war data for Rumania and Bulgaria have or have not been adjusted for subsequent territorial changes.
c. 1946/47 and 1947/48 for Hungary.
d. Plan.

[1] The table shown here is reproduced from Table 8 of the *Economic Survey of Europe since the War*, Economic Commission for Europe, 1953.

TABLE IV

National Income and Investment in Three Eastern European Countries

Country	Year	National Income: Billions of National Currency[b]	Investment[a]: Billions of National Currency[b]	Investment[a]: Percentage	Percentage Distribution of Investment[a]: Agriculture and Forestry	Industry and Building: Light Industry	Industry and Building: Heavy Industry	Industry and Building: Total	Transport	New Housing	Government and Other
Poland	1947	1,392	114	8.2	6.9	5.4	26.7	32.1	26.8	19.9	14.3
	1948	1,703	137	8.0	10.3	10.4	24.2	34.6	19.0	19.4	16.8
	1949	1,812	225	12.4	10.0	10.1	31.9	42.0	18.0	8.0	22.0
	1950	2,192	345	15.7	10.0	10.5	31.5	42.0	16.0	8.0	24.0
	1951	2,457	476	19.4	8.6	11.1	31.5	42.6	15.8	11.0	22.0
Czechoslovakia	1947	160	27.7	17.3	5.8	..	..	26.0	24.0[c]	29.4	14.8[c]
	1948	176	35.4	20.1	5.2	..	..	20.9	23.5[c]	32.4	18.0[c]
	1949	198	46.8	23.6	..	..	..	..	..	..	..
	1950	213	47.4	22.3	..	..	..	..	..	..	..
	1951	244	60.2	24.7	..	..	..	..	..	..	..
Hungary	1938	22.9	3.16	13.8	15.2	9.2	18.6	27.9	11.0[c]	23.1	22.8[c]
	1946/47[d]	13.9	0.50	3.6	..	..	..	..	..	..	..
	1947/48[d]	18.8	2.00	10.6	4.5	6.5	32.0	38.5	19.0[c]	9.0	29.0[c]
	1949	25.0	4.47	17.9	6.9	..	..	38.0	16.1[c]	10.3	28.6[c]
	1950	28.5	6.00	21.0	10.5	4.2	40.5	44.7	21.6	14.7	8.4
	1951	34.3	8.75	24.5	10.3	3.6	48.0	51.6	..	..	..

a. Gross fixed capital formation.
b. At constant prices; in Czechoslovakia and Poland, 1947 prices; in Hungary, January 1947 plan prices.
c. Roads and waterways included in 'other'.
d. August/July periods.

[1] The table shown here is reproduced from Table 7 of the *Economic Survey of Europe since the War*, Economic Commission for Europe, 1953.