ON THE SOVIET CONCEPT OF NATIONAL INCOME

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I

In the economic literature of the past century or more, the concept of national income has been used by various economists for three distinctly different purposes. The first, which is probably the oldest use, is to identify the magnitude of national income with that of economic welfare. This strain, which can be traced back to Adam Smith, was most fully developed by Pigou in his classical work, *The Economics of Welfare*. The second use, which is closely allied to the first in many of the authors, is to regard national income as the source out of which various income shares arise. The equivalent term "national dividend" best fits this use. The third strain, which is comparatively recent, makes use of the concept of national income for aggregative economic analysis frequently designed for application to economic and fiscal policies.

It is quite natural that even within the camp of non-Marxian economics the precise operational definition of the concept of national income will differ according to the particular use for which it is designed. For example, the famous Fisher-Pigou controversy whether national income consisted *solely of services* as received by ultimate consumers or not was germane to the use of the concept as a measure of economic welfare and is rather irrelevant to the other two uses. Again, it is widely recognized that for certain analytical purposes related to short term economic policies the *gross* national product concept is much more useful that the *net*. It is quite important, therefore, that whenever we make a critical appraisal of an operational definition of national income we take into account the specific purpose for which it is designed.

In the camp of Marxian economics, the concept of national income dates back to Marx himself; and the use to which it has been put has largely been limited to the second strain mentioned above, namely national income as the distributable net income of the whole nation. In Marx's own words, "viewing the income of the whole society, the national income consists of wages plus profit plus rents."[1] In a more recent formulation, John Eaton, a Marxist economist, states that "the national income is the

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[1] K. Marx, *Capital*, Vol. 3, p. 979.

sum of newly produced commodities, the total net social product, the new values created in a given period of time, say, a year."[2]   On appearance, these definitions do not seem to differ very much from the ordinary one widely used in the modern economic literature.   But the point of fundamental difference lies in the concept of "production."   When Eaton speaks of "newly produced commodities", he is using the word "produced" in the restricted Marxian sense, that is, as circumscribed by the Marxian concept of "productive work."   And "productive work" is defined as work in the sphere of material production, that is, the direct harnessing by man of the goods of nature, "a process in which both man and nature participate, and in which man of his own accord starts, regulates, and controls the material reactions between himself and nature."[3]   This does not necessarily mean that the result of productive work has to be embodied in material objects.   But clearly excluded from the category of "productive work" are such service-works as the fighting services, the police, the ordinary government services, health services, education, finance, culture, and science.   In fact, however, Marx's definition of "productive work" is further complicated by another strain which was developed by Marx especially in his *Theories of Surplus Value*.   There, he defines "productive labor" as "that labor which produces capital," or again, agreeing with Adam Smith, "that labor which exchanges directly for capital" in contrast with "unproductive labor" which "does not exchange with capital but directly with revenue."[4]   This strain leads to another formulation by Eaton, meant to be specifically relevant to the capitalist society, that "the distinguishing mark of productive labor is the fact of producing values and, more particularly, surplus values."[5]   Thus Eaton finally comes to the definition of national income which reads:

> National income can only be the new values produced and embodied in the commodities available for the community's use.   These new values equal the sum of total wages of productive workers plus total surplus value (v+s in the Marxian formula).   The surplus after payment for wages is the sum total available for rent, interest, profit, for accumulation, for commercial services and other "overheads" of the capitalist mode of production, for the armed forces and other non-productive expenditures by the State.[6]

Although on finer theoretical points there have been a great deal of discussion on the exact formulation of the Marxian concept of national income, the Eaton's definition above is a sufficiently representative one

[2] J. Eaton, *Political Economy*, (revised edition) 1952, p. 165.
[3] K. Marx, *Capital*, Vol. 1, p. 158.
[4] K. Marx, *Theorien über den Mehrwert*, Bd. I. p. 258, 259.
    (*A History of Economic Theories*, tr. by T. McCarthy, 1952, p. 198)).
[5] Eaton, *op. cit.*, p. 157.
[6] *Ibid.*, p. 168.

among Marxists on which they would agree so far as the basic aspect of the problem is concerned.   Thus the statistical side of the national income discussion among Marxists has been mainly concerned with the problem of ascertaining a measure of the rate of surplus value, or the ratio between the total of surplus value and that of wage payments.   If, however, one's interest lies in the statistical estimation of the rate of surplus value, it is usually much more conveniently done in terms of manufacturing census statistics than with reference to the ordinary national income statistics.   In fact, most of the Marxist economists who have attempted to calculate the rate of surplus value for various countries have made use only of manufacturing census statistics and did not bother with the matter of scrutinizing the so-called "bourgeois" national income statistics.   Until this scrutinizing were done, it would be difficult to put one's fingers exactly on the operational difference of the definition of national income in the two camps.   Fortunately, this gap is now filled by the appearance of an article by A. Palytsef[7] who subjects the Department of Commerce estimate of national income to a thoroughgoing Marxist critique thus enabling us to obtain a much more concrete understanding of Marxist methodology on this question than heretofore possible.   The present essay is an attempt to examine the Palytsef article with a view to bringing into relief the specific points of difference between his (i. e., Marxist) approach with the one currently used in the western world.

II

The task which Palytsef sets upon himself is to obtain the theoretically correct figures of national income from Marxist point of view out of the raw material provided by the *Survey of Current Business*, July 1953.   For this purpose, he takes, common with most national income specialists in the western world, the three angles of approach, i. e., production, income distribution, and expenditure.   And since only what is produced can be distributed as income and only what is distributed as income can be expended, it is assumed, as a matter of definition, that the magnitude of national income is identical from whichever angle it is approached.   This is a point of great importance whose significance will become clearer in later page.

In barest outline, Palytsef's method of approach is first to take the Department of Commerce figure of gross national product (which is 286.8 billion dollars for 1950, for example), to subtract from it those items which from Marxist point of view do not constitute a part of net national

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[7] Пальцев: "Вопросы теории национального дохода капитапистического общества" Вопросы Экономики, Ноября 1953.   (A. Palytsef, "Problems of national income theory in capitalist societies", *Problems of Economics*, November 1953).

product, and then to obtain the figure of 213.2 billion dollars for 1950 as
the correct magnitude.   The figure, obtained from the production angle,
becomes subsequently the controlling figure for the two other angles.
Next comes the income distribution angle where the income of "productive
labor" is first estimated separately out of the Department of Commerce
figure of "personal income" (226.7 billion dollars for 1950).   Here the
restrictive definition of "productive labor" comes into play and only 57.8
billions out of 226.7 billion dollars of "personal income" are regarded as
accruing to "productive labor."   Once this magnitude is ascertained, the
difference between this and the 213.2 billions of net national product is
imputed entirely to recipients of surplus value, thus giving rise to the rate
of surplus value of 268.9 %.   Finally, the expenditure angle is discussed to
show how the same total of 213.2 billion dollars is expended on such items
as consumption, accumlation and the defense purposes.

(1) *The Production Angle:*   In spite of the importance which Palytsef
attaches to the total figure, his method of calculation is relatively simple.
He takes the GNP as the starting point and subtracts from it what he
considers to be not a part of the "correct" net national product.   Table 1
summarizes his procedure for 1950. Major corrections, as can be seen in the

Table   1

	Consumption		Private domestic investment	Government purchases	Net foreign investment	Total
	Goods	Services				
GNP	131.8	62.7	52.5	42.0	-2.3	286.8
Palytsef	131.8	28.2	34.0	17.7	1.5	213.2

(Unit : billion dollars)

Table, refer to consumption of services, private domestic investment and
government purchases of good and services.   Of these, the correction for
private domestic investment is not very important, inasmuch as it is a
matter of changing the "gross" figure into the "net," and is a common
practice in the "bourgeois" economics also.   The only difference, which
is rather immaterial, is the inclusion by Palytsef of "capital outlays
charged to current expense" as a part of *net* domestic investment, whereas
the common practice is to regard it as comprised in capital consumption
allowances.

Consumption of services is reduced by a flat rate of 55 percent on the
ground that "approximately 45 percent of it can be regarded as akin to
physical expenditure."   How Palytsef arrived at this coefficient is not
made clear, but the assumption seems to be that in so far as service con-

sumption involves the use of physical goods, as for example the shampoo
service requires the use of soap, these must be counted as equivalent to
what he calls "physical expenditure," and that the percentage which they
occupy in the total of service consumption is "approximately 45 percent."

Government purchases of goods and services, which amount to 42 bil-
lion dollars in GNP figure, are reduced to 17.7 billions according to a
simple criterion of including only the net purchases from private business,
i.e., new construction plus other purchases from private business minus sale
of surplus commodities. Finally, the correction on the figure of net for-
eign investment can be explained by the fact that Palytsef takes only "the
net receipts in the commodity trade and the shipping freight services" as
constituting "net foreign investment."

Thus he arrives at the total figure of 213.2 billion dollars as the "cor
rect" measure of net national product of the United States in 1950. Al-
though actually this is the way he calculates the net national product, this
apparently is a short-cut method in the light of his theoretical requirements.
For GNP is, after all, the expenditure components of the total production,
and Palytsef himself defines in another place what constitutes "the total
social products" in terms of sectors of production. According to him,

> What participate in the formation of national income under capitalist
> society are all those sectors of production which contribute to creating
> the total social product. Namely, (1) agriculture (including forestry),
> (2) extractive industries (including the gathering of useful scraps and
> the immediate processing), (3) manufacturing (including repair works),
> (4) construction, (5) transportation and communications (of which only
> that part is included which is concerned with the transportation of
> goods and men and the transmitting of information that are useful in
> the direct production process), (6) the part of commerce and restaurant
> services which can be regarded as the continuation of the production
> process (such as packing, sorting, the normal storing of commodities,
> etc.).

Theoretically speaking, $\Sigma(v+s)$, or the total of wage payments plus
surplus values, of these sectors would add up to the net national product
in the Marxian sense. And it should not be very difficult to separate out
these sectors from the statistics of "national income by industrial origin"
as given in the *Survey of Current Business*. Table 2 summarizes these sta-
tistics for 1950.

Table 2

Agriculture, forestry, and fisheries	17,384
Mining	5,202
Contract construction	11,962
Manufacturing	74,800
Wholesale and retail trade	43,555

Finance, insurance, and real estate	20,964
Transportation	13,291
Communications and public utilities	7,241
Services	22,328
Government and government enterprises	23,360
Rest of the world	545
Total	240,632

(Unit: million dollars)

The total is smaller than the GNP roughly by the amount of capital consumption allowances and indirect taxes. If we examine these sectors one by one in the light of the Marxian theoretical criteria as specified by Palytsef, we ourselves can easily eliminate certain sectors as not producing any new values. Such, for example, will be the case with "finance, insurance, and real estate," "services,"[8] and "government and government enterprise,"[9] which add up to 66.6 billion dollars. According to the specification of "the total social products" quoted from Palytsef above, we have to subtract further that part of "wholesale and retail trade," "transportation," and "communications and public utilities" which cannot be considered as the continuation of the production process. It is not clear how we can do this operationally; but so far as the so-called "net circulation cost" (which stands for the cost involved in the metamorphoses of value forms) is concerned, Palytsef calculates it in another part of his article as amounting to 27.9 billion dollars. If we add this to the previously calculated total of subtracting items, namely 66.6 billon dollars, we must say that at least 94.5 billions out of 240.6 billions of "national income by industrial origin" do not comprise the net national product in the Marxian sense. If this is the case, the total of $\Sigma(v+s)$ comes at most to 146.1 billion dollars, and even taking into account the indirect taxes which amount to 22.8 billions, we find that this total is wide apart from the original figure of 213.2 billions calculated from the GNP. It is difficult to see how Palytsef actually reconciles this difference.

III

(2) *The Income Distribution Angle :* Once Palytsef establishes the fact that the "correct" net national product of the United States amounted to 213.2 billion dollars in 1950, the major problem he is concernd with is to

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[8] According to Grachof (Ф. Грачёв, Буржуазные 'теория' национального дохода на службе империализма, Вопросы Экономики, No. 4, 1953), there are certain services by intelligentsia which contribute to the sectors of physical production that have to be included in the category of producing new values. Eaton (*op. cit.*) also seems to take the similar position.

[9] In so far as government enterprises are engaged in physical production, their net product has to be included in the net national product even in the Marxian sense.

examine how this total is divided between opposing classes, the ruling and the ruled. For this purpose he has to calculate, first, what is called "the necessary products of productive workers," or what amounts to the same thing, the sum of variable capital, Σv. He calculates this from the statistics of "personal income" given in the *Survey of Current Business* as rearranged in Table 3 in the manner amenable to Palytsef's methodology. The total is 226.7 billion dollars, which of course do not include the undistributed profit of corporations (13.6 billions), and from which he singles out what he calls "necessary products to be imputed to productive workers in the process of production" in accordance with theoretical requirements as follows:

Table 3

	Physical production	Circulation			Services	Gov't	Total
		Transportation & communication	Trade	Total			
Wages & Salaries	63.5	14.0	27.3	41.3	18.6	22.1	145.5
Supplement to wages & salaries	4.0	1.0	1.0	2.0	0.7	1.2	7.9
Proprietors — Agriculture Forestry, & Fisheries	13.6						
Proprietors — Retail trade				9.8			
Proprietors — Others	4.9			2.0			
Proprietors — Total	18.5			11.8	7.9		38.2 (37.0)*
Rental income							8.5
Dividends & interest							19.6
Transfer income							15.1
Contributions to social security							−2.9
Total							(226.7)

(Unit: billion dollars)

* Figures in brackets are after adjustment for inventory valuation. The total is given only in this form.

(a) The total of wage payments in agriculture, manufacturing, construction, and transportation and communications (in so far as they contribute to commodity production).

(b) One-tenth of salary payments in the above sectors.

(c) One-fifth of wage payments in the sector of wholesale and retail trade.

(d) One-tenth of income of retail traders. (It is assumed that the average per-capita income of retail traders is twice as large as that of wage-earners in that sector).

(e) 35 percent of non-corporate income in agriculture as comprising the income of the agricultural working class.

After enumerating these rules of thumb, Palytsef gives only the final result of calculation, which is 67.4 billion dollars for 1950. In attempting to trace the process of calculation from Table 3, we face no difficulty so far as the items (d) and (e) are concerned. We simply apply the designated percentage of ten and thirty-five respectively to income figures of retail traders and agricultural proprietors as given in Table 3, and obtain the sum of 5.8 billions for the items (d) and (e). The remainder, namely 61.6 billions, are accounted for by the items (a), (b), and (c). But here we are confronted with one difficulty which Palytsef apparently has solved somehow but does not make clear how he has done it. That is the separation of wages from salaries, which the Department of Commerce statistics do not give. On inspection it appears that Palytsef applied some uniform coefficient to the total of "wages and salaries" in order to obtain the amount of wage payments. On this assumption it is possible to calculate this implied coefficient on the basis of the figures in Table 3 and the Palytsef's sum of 61.6 billion dollars.[10] It is most probable that he has taken two-thirds of "wages and salaries" as imputable to wages on the ground that three-fourths of employees in the sectors concerned are wage-earners[11] and that the per capita wage income is one half of that of salary income.

It is quite interesting to compare the rules of thumb applied here with the specifications for obtaining the "correct" measure of net national product discussed in the previous section. Such comparison is made in Table 4. We find that there are certain minor inconsistencies between the two treatments. For example, when viewed from the income distribution

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[10] If we designate by x the ratio between wages payments to the total of wages and salaries, $(1-x)$ will stand for the ratio between salary payments to the total of wages and salaries. And we can write the following equation by making use of the figures in Table 3 and Palytsef's rules of thumb:

$$(63.5+4.0+14.0+1.0)\left\{x+\frac{(1-x)}{10}\right\}+(27.3+1.0)\frac{x}{5}=61.6$$

Solving for x, we obtain 66.7 %.

[11] In 1952, for example, against the total number of employees in manufacturing of 16,600,000, the wage-earners on average during the year numbered approximately 13,000,000, which is about three-fourths.

angle, sectors of "transportations" and "public utilities" are treated on the equal footing with such sectors as "mining" and "manufacturing," but this is not the case when viewed from the production angle. Again, we probably should not ignore the income of small proprietors in the sectors of "manufacturing" when we are counting the income of productive workers, inasmuch as Palytsef includes 35 percent of agricultural proporietors' income in this category. If we recalculate the net national product in the light of the rules of thumb for income distribution angle, thus assuming that the whole of "transportation" and "communications and public utilities" are "productive" and that one-fifth of income originating in "wholesale and retail trade" should be considered as such, the size of $\Sigma(v+s)$ comes to be 138.6 billion dollars as indicated at the bottom of Table 4 and not as high as 213.2 billions which Palytsef gives. Again it is difficult to see how this original figure of 213.2 billions, derived from the GNP, can be justified in the light of further elucidation developed from the income distribution angle.

Table   4

Treatment in—	Net National Product	Income of productive workers			
		Wages	Salaries	Proprietors' income	Corporate income
	%	%	%	%	%
Agriculture, forestries, and fisheries	100	100	10	35	0
Mining	100	100	10	0	0
Contract construction	100	100	10	0	0
Manufacturing	100	100	10	0	0
Wholesale trade	}partially	} 20	0	0	0
Retail trade			0	10	0
Finance, insurance, and real estate	0	0	0	0	0
Transportation	partially	100	10	0	0
Communications and public utilities	partially	100	10	0	0
Services	0	0	0	0	0
Government and government enterprises	0	0	0	0	0
Rest of the world	0	0	0	0	0
Total income (billion $)	138.6	58.9	2.7	5.8	0

In order to arrive at the final figure of "the necessary products" of productive workers as defined in the Marxian terminology, it is necessary to deduct from the 67.4 billions total obtained above the amount of direct taxes paid by these workers. Palytsef estimates this amount to be 9.6 billion dollars out of the total direct individual taxes of approximately 20 billions. When we consider 67.4 billions occupy about 30 percent of the total individual income, this imputation appears to be slightly exaggerated. But it is quite possible that he imputed a part of the direct corporate taxes to the burden borne by productive workers. At any rate, subtracting this 9.6 billions tax from 67.4 billions, we finally arrive at the measure of "the necessary products," namely 57.8 billion dollars. Palytsef takes this figure to represent the sum of variable capital paid to productive workers who produce new values to the amout of 213.2 billion dollars. Thus the amount of surplus value turns out to be 155.4 billion dollars and the rate of surplus value 268.9 percent (155.4/57.8). How the total surplus value of 155.4 billions is distributed among capitalists and other non-productive members of the society is not made clear by him. But it is at least certain that the so-called "secondary distribution" (income paid out of revenue) is not our concern; and the total of surplus value produced has to be distributed in the first instance among (a) industrial profit, (b) commercial profit, (c) net circulation cost, (d) interests, and (e) rent. If this is the case, it will be rather difficult to exhaust the total surplus value of 155.4 billion dollars among these destinations.

IV

(3) *The Expenditure Angle:* The third angle from which Palytsef discusses national income is that of expenditure, that is to say, how the total of 213.2 billion dollars is expended towards different destinations. In the light of how he calculated this original figure from GNP, one might suppose that the answer would be simply that

Consumption	160.0 billion dollars	
(of which, by productive workers)	(57.8 ″	″)
Accumulation	34.0 ″	″
Government purchases	17.7 ″	″
Net foreign investment	1.5 ″	″
Total	213.2 ″	″

However, Palytsef has an entirely different answer aside from the amount of consumption by productive workers which has to be equal to the total of variable capital, namely, 57.8 billion dollars. He starts out with a general remark that the new values created within a given year will be destined towards the following six "funds":

(a) Consumption fund for the working population
(b) Consumption fund for the exploiting class
(c) Fund for capitalistic accumulation
(d) Net circulation cost and losses
(e) Fund for military expenditures
(f) The net receipts in the commodity trade and the
      shipping freight services

Since the first item in this list is assumed to be equivalent to the total of variable capital, the remaining five have to come out of the surplus value, or 155.4 billion dollars. Of these Palytsef calculates independently the last four items and then gives us "the consumption fund for the exploiting class" as the residual. It is especially interesting to recount the manner in which he estimates the following three:

> *The Fund for Capitalistic Accumulation:* In estimating this from the expenditure angle, he apparently adds, to the previously calculated net private investment of 34.0 billions, the governmental construction other than military ones, and obtains the figure of 38.9 billion dollars.
>
> *Net Circulation Cost and Losses:* The basis for estimating this peculiarly Marxist category is "to take the wages[12] of commercial workers other than the one-fifth which was included in the necessary product, add the total wage payments in the sector of financial establishments, and then add 14 percent of the foregoing total as the current material cost in these sectors." Thus Palytsef obtains the figure of 27.9 billion dollars.
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> *The Fund for Military Expenditures:* In estimating this item, Palytsef makes use of another publication by the Department of Commerce, *Markets after the Defense Expansion,* 1952, where the government purchases for military purposes including services are given. He adds further various payments for veterans to arrive at the total fund for military expenditures, 25.4 billion dollars.[13]

These independent estimates, together with "the net receipts in the commodity trade and shipping services" which are here estimated to be 1.2 billion dollars, will total 93.4 billions; and the difference between this sum and total surplus value, namely, 62.0 billions, is taken to cover "the consumption fund for the exploiting class." Table 5 summarizes these figures in comparison with Palytsef's original calculation from the GNP.

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[12] Here he speaks of "wages," but earlier when he was enumerating the items for the necessary products he used the expression which could be translated as "wages and salaries." If we take the expression here literally to mean wages only, the amount of "net circulation cost and losses" will become much smaller than the figure given by him.

[13] Adding various payments for veterans (4.2 billions) to the figure of military expenditures given in *Markets after the Defense Expansion* (18.5 billions), we get 23.3 billion dollars and not the amount indicated by Palytsef.

Table 5

	Estimates from	
	Production angle	Expenditure angle
Consumption by:		
Productive workers		57.8
Exploiting class		62.0
Total	160.0	119.8
Net circulation cost, etc.		27.9
Accumulation, private	34.0	34.0
Government purchases		
Accumulation		4.9
Military expenditures		25.4
Total	17.7	30.3
Net foreign investment	1.5	1.2
Total	213.2	213.2

(Unit: billion dollars)

Generally speaking, it is not difficult to explain the kind of discrepancies evident in this Table. Let us assume, for example, a simplified case where there is, aside from the value producing sectors, a single branch of consumption service which caters to capitalists. In this case, capitalists would spend a part of their income on this service which is not included in the net national product in the Marxian sense. In enumerating the items from the expenditure angle, either we have to include such expenditure on service by capitalists, or to track down the expenditure by service workers on material goods and count these as a part of net national expenditure. If we choose the former method, it will be quite natural that the total of material consumption goods from the production angle will not be equal to the total of similar goods from the expenditure angle. If we choose the latter method, intermediary categories will disappear and it should be possible to get the identical breakdown in the two approaches. What Palytsef has done here seems to be a mixture of the two methods. And this makes it rather difficult to interpret the result consistently. If should of course be possible to draw up an aggregative input-output table indicating productive and non-productive sectors explicitly —— a kind of table from which any one of the Palytsef's sets of figures could be extracted without any danger of misinterpretation.

In many ways Palytsef's article leaves much to be desired as I have indicated in passing above. But at the same time it marks a definite step forward in that the confronting of the Marxist concept of national income with the detailed "bourgeois" national income statistics was here attempted for the first time. In this way we can be certain that the points of theoretical difference between the two camps as regards national income will become operationally explicit and thus unnecessary mutual groping on conceptual matters can be gradually eliminated.[14]

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[14] It was after I had completed this article that I had an access to Helmut Koziolek's *Zur Marxistisch-Leninistischen Theorie des Nationaleinkommens*, Diskussionsbeiträge zu Wirtschaftsfragen, Heft 9, 1953. I regret that I could not take into consideration his discussion of the subject which throws further light on the Marxist theory of national income.