4.4 PROBLEMS CONNECTED WITH THE CALCULATION OF THE MONEY EQUIVALENT OF VALUE

This text is taken from J.Gouverneur, *CONTEMPORARY CAPITALISM AND MARXIST ECONOMICS,* Oxford, Clarendon Press, **1983,** p.242-245 and 260.

The question of differences in skill or in the intensity of labour is briefly considered on p. 244 (inc1uding footnote 5 p. 260). This question is also considered in J.Gouverneur, *THE FOUNDATIONS OF CAPITALIST ECONOMY,* **2005,** chapter **II,** point 2.2.2 ; it is thoroughly examined in J.Gouverneur, *A purely social conception of value and productive labour,* **2008,** section 3.

Problems connected with the calculation of E

We know that the magnitude of E is obtained statistically by dividing the sum total of prices or of revenues by the sum total of values:

$$E = \frac{\text{sum total of prices}}{\text{sum total of values}} = \frac{\text{sum total of revenues}}{\text{sum total of values}}$$

The first problem is about whether we should consider prices (or revenues) and values in 'gross' or 'net' terms. In fact, as we have already said,[2] the denominator and the numerator of E can be understood in two different ways: either the sum total of *total* values (including the past values transferred) and the sum total of *gross* prices or revenues (incorporating the cost of the means of production employed); or the sum total of *new* values (excluding the past values) and the sum total of *net* prices or revenues (having deducted the cost of the means of production).

Theoretically, the two methods of calculation are equivalent and arrive at the same result. Let us assume, for example, that in the course of a given year (t_1) the sum total of *present* labour devoted to producing commodities is 3 million hours and the net price of the commodities (or the *net* social revenue) is £30 million. Let us assume in addition that the producers employ in t_1 a set of means of production (tools and materials) made in the course of the previous year (t_0); these means of production cost, in t_0, 7 million hours or £20

million, while in t_1, they are only worth 4 million hours (due to technical progress) but cost £40 million pounds (due to inflation).

The calculation of E in 'net' terms gives us:

$$E \text{ ('net') in } t_1 = \frac{£30 \text{ million}}{3 \text{ million hours}} = £10 \text{ per hour}$$

The calculation of E in 'gross' terms, to be correct, must consider the value and the price of the means of production not in t_0 (the year of their manufacture) but in t_1 (the year of their use, of their incorporation in the production of new commodities);[3] now, from t_0 to t_1, technical progress has brought about a reduction of the value of the means of production, while inflation has brought about an increase in their price (which enterprises must take account of in their amortization policy). Consequently, the calculation of E in 'gross' terms gives us:

$$E \text{ ('gross') in } t_1 \neq \frac{£20 \text{ million} + £30 \text{ million}}{7 \text{ million hours} + 3 \text{ million hours}} \text{ (or £5 per hour)}$$

$$= \frac{£40 \text{ million} + £30 \text{ million}}{4 \text{ million hours} + 3 \text{ million hours}} = £10 \text{ per hour}$$

If the two methods of calculation can be considered as equivalent in theory, it works out differently in practice. For in practice, the calculation of E in 'gross' terms encounters an insurmountable problem, namely the estimation of the value of the means of production: unlike the present value (which can be estimated from the number of labour-hours effectively worked), the past value cannot be the object of any direct observation; this would remain true if we wished merely to quantify the value of the means of production in the year of their manufacture. Consequently, in practice, the only method we can use consists in calculating E in 'net' terms:

$$E = \frac{\text{sum total of net prices}}{\text{sum total of new values}} = \frac{\text{sum total of net revenues}}{\text{sum total of new values}}$$

The denominator of E is provided by the number of hours of *present* labour devoted to *producing commodities*: it is these hours of labour which create new values and new revenues. The denominator is therefore the number of *hours of productive labour, productive in the wider sense*, comprising both waged and non-waged labour (providing these wage-earners or non-wage-earners take part in the production of commodities).

The estimation of the hours of productive labour raises a problem of *statistical availability*: how do we distinguish, in the usual statistics, between productive and unproductive workers? and how do we get to know the average labour-time per productive worker? We shall see, further on, the methods and expedients to which we have resorted in order to resolve these practical questions. But the estimation of the hours of productive labour also raises two more *theoretical* problems which should be mentioned here.

On the one hand, the hours of present labour devoted to producing commodities only constitute productive labour (productive of value and of revenue) in their entirety if all the commodities produced are actually sold. If a proportion of the commodities is not sold, a corresponding proportion of the labour provided does *not* constitute productive labour. As we are unable to measure the degree of non-sale of commodities, we will assume, for simplicity's sake, in what follows that all the commodities produced are actually sold and therefore all the hours of present labour devoted to their production do constitute productive labour.

On the other hand, we cannot ignore the problem of the differences in skill or in the intensity of labour: are all hours of labour equivalent? Is not labour 'worth' more (does it not create more value?) in the case where the labour-power is more skilled (or functions more intensively) than in the opposite case?

We already touched on this problem when we considered the relations between unequally mechanized *enterprises* within the same branch of production.[4] We suggested that (simultaneous) differences in technique, skill and intensity of labour bring about *transfers* of surplus-revenue but do not result in differences in the *creation* of value and of surplus value. The same principles can be extended to relations between *branches* of production. The price of commodities is affected by differences in the 'degree of skill' (or of intensity) of labour among the different branches of industry, just as it is affected by differences in the degree of mechanization and in the degree of protection obtaining in each branch. But in the three cases (difference in the degree of mechanization, in the degree of protection, in the degree of skill or of intensity), it is the price of the commodities which is affected and not the quantity of value itself: in other words, the three cases mentioned only bring about transfers of surplus revenue between branches of production, that is, divergences between the quantity of revenue and of surplus revenue *created* and the quantity of revenue and of surplus revenue *appropriated* by each branch.

Consequently, from the point of view of the creation of value and of revenue, and more generally, of the measurement of labour, we can take it that one hour of labour is always equal to another hour of labour: 1 hour of 'complex' labour (skilled or intensive) equals 1 hour of average labour; 1 hour of specialist labour equals 1 hour of unskilled labour; 1 hour of labour in one enterprise or industry equals 1 hour in another enterprise or industry.[5]

The final problem we must bring up here concerns the numerator of E, that is, the sum total of net revenues (or of net prices). Just as the denominator aims to measure the *value created* in a given economy, the numerator should in theory measure the *revenue created* in the economy (or the sum total of net *simple* prices of commodities). For this aggregate revenue created (or the sum total of net *simple* prices) constitutes the exact translation, in money terms, of the value created. But the statistics available only make it possible to consider the aggregate revenue *obtained* (distributed or spent) in an economy (or the sum total of net *actual* prices of commodities); now the revenue obtained differs from the revenue created (the actual price differs from the simple price) each time there is a transfer of surplus revenue. Making use of the national statistics on aggregate revenue *obtained*, our method of calculation amalgamates the revenue *created* in one country and the revenue *transferred* from one country to another. As a result, there is a risk of 'distortion' in the estimation of E: this distortion may be significant if the international transfers of surplus revenue are themselves significant *and* if they are made systematically in favour or to the detriment of certain countries.

NOTES

2. See chapter 2, p. 35, note 13 and chapter 10, p. 228, note 22.
3. This remark applies to *all* the means of production used, directly or indirectly, in t_1: not only the means of production manufactured in t_0, but also the means of production used to manufacture *them* and so on. In fact, *all* past labour is thus 'reduced to present labour', that is valued at its value and at its price in the year t_1. This is what explains that, in the example, the relation pounds per hour is, in the end, the same for past labour (40 million/4 million) as for the present labour (30 million/3 million).
4. See chapter 6, pp. 115–16.
5. Note that we approach the problem of more *skilled* labour and the problem of more *intensive* labour in the same way. We do not, therefore, consider that an increase in the *intensity* of labour can be put on the same footing as a prolongation of working-time. Only the prolongation of (productive) working-time brings about a 'production of absolute surplus value'. The increase in intensity constitutes one of the ways of increasing productivity (and so of reducing value) and should be treated in the same way: if it is widespread, it reduces the value of labour-power and brings about a 'production of relative surplus value'; if it is limited to one enterprise or to one branch of industry, it brings about transfers of surplus revenue to the benefit of that enterprise or branch. We see at the same time that the unit of measure (1 hour of average labour) does not constitute a standard which is stable throughout time, since average skill and intensity are not constant.