

Underemployment – Its Conceptual and Statistical Issues

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THE present paper aims at discussing certain fundamental problems connected with the definition and measurement of underemployment as it exists in the underdeveloped countries today. It will be observed that no rigorous and unique definition of underemployment could be set up, particularly because there exist more than one form of underemployment side by side in the same economy. The rural peculiarities are so important that certain aspects of the problem of underemployment can be tackled "by shrewd, experienced, alert, instinctive judgement better than by systematic reasoning based on ordered knowledge".

In Part I an attempt has been made to clarify certain basic concepts. In Part II the problem of the choice of approach has been discussed and the relationship of the different approaches with the problem of measurement has been briefly suggested.

I

The basic difference between the Keynesian unemployment and underemployment of the structural variety is that the former is associated with excess capacity whereas the latter is the outcome of insufficient capital equipment. Accumulation being its solution, the problem of underemployment necessarily assumes a dynamic nature and cannot therefore be properly visualised in a given set of conditions only.

This point is important because the notion of 'gainful work' emerges from it. In a growth-oriented pre-capitalist economy, such as India, gainful activity must be such as contributes to gross national product. Housewives, students, persons living exclusively on income from property, pension, remittances, etc are accordingly excluded from the labour force. This is likely to make one aware of the relevance in this context of Adam Smith's celebrated chapter "Of the Accumulation, or of Productive and Unproductive Labour", where he writes:

"Both productive and unproductive labourers, and those who do not labour at all, are all

equally maintained by the annual produce of the land and labour of the country. This produce, how great soever, can never be infinite, but must have certain limits. According, therefore, as a smaller or greater proportion of it is in any year employed in maintaining unproductive hands, the more in the one case and the less in the other will remain for the productive, and the next year's produce will be greater or smaller accordingly.... That part of the annual produce of the land and labour of any country which replaces capital never is immediately employed to maintain any but productive hands. It pays the wages of productive labour only." (Wealth of Nations, Everyman's Edn p 296.)

With this concept of 'gainful work' in our mind we should now remember that the idea underlying the 'labour force' concept should be 'availability for gainful work' rather than attachment to the labour market. This is so because the labour market covers only a small proportion of the underdeveloped economy.

A very difficult problem comes up at this point. If by underemployment of a segment of the labour force we mean its availability for more work over and above the actual volume of work performed in any specified period, we are still left with the task of explaining what is precisely meant by 'a volume of work'. A given volume of work may stand either for an equivalent number of man-hours or an equivalent amount of output or else an equivalent volume of earnings. If these three variables move in the same direction and also maintain a certain definite relationship with one another, any conceptual or statistical issue may probably be coped with in terms of any one of them. Unfortunately, however, they scarcely move in agreement with one another in an unregularised economy. In the organised sector—which forms only a fraction of such an economy—some degree of uniformity in this movement might be observed; but in the case of self-employed persons

(both in agriculture and non-agriculture), for example, length of working period may have much less reliability and significance. "The self-employed may work many hours or few hours or may so mix work and non-work that he cannot distinguish between the two; some peddlars, for example, may spend as many hours in social conversation while waiting for customers as they do in the actual conduct of their business". ("Results of Tests on Measuring Underemployment in Puerto Rico", June and July, 1952, p 16.) In these cases, therefore, any comparison of the actual hours of work with the so-called 'normal' is only fruitless and might lead to a confusion between 'full time' employment and 'full' employment.

There are other difficulties too. The terms 'normal hours of work', 'normal output' or 'normal earnings' lose their meaning unless the idea of 'normal' is made clear and precise. On the operational level it will, however, be observed that there are more than one 'normal' in the economy. The 'normal' varies from one activity status to another and sometimes even within the same activity status. Again, though in some cases we might be fortunate enough to have some objective basis for constructing the 'normal', we might, in the vast majority of cases be driven to choose purely arbitrary standards. This, of course, is no argument against the choice of arbitrary standards on necessary or suitable occasions. Indeed, in sectors where market principles do not apply, viz, subsistence farmers, self-employed workers, etc, and where the value of output and earnings (generally a mixture of cash and kind) has often to be assessed on imputational basis, the 'normals' would necessarily be arbitrary. Even the standard period of work here is absolutely incomparable with the 'standard' obtaining in factories, and the modal values for output, earnings and work-hour appear more acceptable. All this will be evident when we discuss in the next section the problem of measuring the degree of underemployment.

II

It is almost meaningless to speak of underemployment without taking account of the fact that it may assume more than one form. The statistical approaches to the assessment of the different types would naturally not be the same. Again, the same approach would require modifications according as the sectors of investigation are rural or non-rural. First, there will be differences in the 'standards' used for hours of work, output and earnings. The standard hours of work may become all the more complicated in rural areas where labour time disposition is so uncertain and varies greatly from man to man. The Bureau of Labour Statistics (Puerto Rico) has made an attempt to designate underemployment in terms of the person's own reactions and has considered it justified to classify the subsistence farmers and the self-employed in non-agriculture as underemployed in accordance with their answers regarding desire to work more and without regard to number of hours actually worked. But whatever the justification of this subjective approach in the Puerto Rican economy (where conditions of production and employment might be more regularised than in the Asian countries), we cannot possibly adopt it in India. The reasons for this are numerous. In India, for example, it is very often assumed by people, otherwise willing to work, that avenues for work outside the family do not exist and therefore they do not have the feeling that they are underemployed. Again, there may be social customs that put restrictions on females being employed outside the home. Naturally, females consider themselves adequately employed whatever the volume of work they can actually get at home. Above all, there is the peculiar leisure-preference pattern. Besides, norms must be set differently for busy and slack periods.

Now, as we have already noted hours of work, output and earnings show a fairly consistent relationship in the regularised sector and hence any one of them might be used to measure the degree of underemployment there. Hours-of-work approach is most feasible in both urban and rural areas, though in rural areas the economic conclusions arrived at through this approach are likely to be somewhat less reliable. Data on

earnings therefore need to be compared at all stages. But unfortunately rural earnings are notoriously unamenable to statistical estimation. There is no appropriate set of prices and imputations are bound to be unsatisfactory. Still it must be understood that the measures of rural underemployment will ever remain unsatisfactory if steps are not taken to supplement the hours-of-work approach by some sort of an earnings approach.

There is much controversy regarding the choice of appropriate reference period. In most underemployment surveys in this country, as well as in western countries, the week has been found to be the most suitable reference period. For labour survey purposes it is short enough to reflect the current status of the population to be classified and to obtain accurate reporting without taxing the memory of those questioned. At the same time, it is long enough to avoid erratic fluctuations (Labour Force Statistics, Sample Survey Methods, O E C, 1954). For surveys in urban areas some have preferred the fortnight as it is more consistent with the wage payments pattern and employment and discharge practices.

Complications arise, however, when an individual is found to have more than one activity status during the period—and naturally they do arise as the length of the period is extended. There may be mistakes of double counting if a unique status cannot be fixed for him. The method of solving this problem, as adopted in U S A and Canada, is to evolve a priority scale of activity status and then to ascribe to the person the status securing the highest priority. This method (allowing for its implicit statistical bias in favour of employment) ought to be made use of for labour survey purposes in India where persons with multiple activity status are a common feature.

Now there may be at least three broad types of underemployment in the agricultural sector: (a) overt, (b) disguised and (c) potential. The overt type, again, is often a mixture of chronic and seasonal underemployment (the latter itself might sometimes be the cause of the former). It must also be noted that these types are not quite mutually exclusive. The overt type requires no clarification. The disguised and the potential forms have the common

characteristic that a number of workers could in both cases be released without reducing total agricultural output. The difference between them, however, is that in the first case we conceive only of raising the intensity of work and of improving the organisation of work, which involve no net addition to capital outlay. In the second case, the operation is effected through more fundamental changes viz, change in the method of cultivation, increase in the substitution of capital for labour, enlargement in the size of land holdings, etc.

The common statistical problems in the measurement of underemployment have already been hinted at. The choice of approach is the initial problem. If 'hours-of-work' approach is adopted, the measure of the degree of overt underemployment might be presented as follows:

$$U = \frac{W-nP}{W} + \frac{(12-n)(P-F)}{W}$$

where U = Degree of overt underemployment;

W = Potential aggregate labour time in a year;

P = Average number of labour hours actually worked in the peak months;

F = Average number of labour hours actually worked in the off seasons;

n = Number of peak months.

The first component in the right hand side expression represents the chronic and the second the seasonal underemployment.

This formula is a modified version of the one given by Chian Hsieh ('Underemployment in Asia, Nature and Extent', International Labour Review, June, 1952.) On simplification, this would ultimately reduce to:

$$U = 1 - \frac{1}{n} \left[\sum_{i=1}^n \frac{P_i}{n} + \sum_{j=1}^m \frac{F_j}{n} - nP \right]$$

where $n = 12 - s$.

If the 'earnings' approach is resorted to, this same formula would do; only W, P and F would then refer to the corresponding earnings data. As for the measurement of the disguised and potential varieties of underemployment, no set formula could be given.

From our earlier analysis, however, it is evident that in structurally backward economies the potential type has a much greater significance than any other, at least from the stand-point of growth economies.

The extent to which labour might be shown 'redundant' would vary directly as the amount of capital invested in achieving the labour-saving devices. But if there is no upper limit to the amount of capital

invested, the degree of underemployment might be shown so fantastically high as not to be of any significance. At the same time, this is a field where personal equations must be given some scope. In Pakistan, a recent survey (Vide Pakistan Economic Journal, July, 1949) in three villages of West Punjab has revealed the redundancy of 56 per cent of the male labour force (12 years and over). The underlying

assumption was that 'the proper unit of labour for one square of land (25-27.6 acres) in a canal colony is three men and two pairs of bullocks'. Assumptions of this nature are bound to be rough and ready and at times naive. But it is rather doubtful whether assumptions in statistical measurements can ever be absolutely precise in the field of social sciences; nor need we try to be timidly precise about details.

Around Bombay Markets

Select Committee Disappoints

Thursday, Morning

THE report of the Select Committee on the Wealth Tax Bill has not enthused Dalal Street. The more optimistic had hoped that the wealth tax on companies would be withdrawn and that the proposed double taxation of shareholders' wealth would be dropped. While the psychological incidence of new taxes is bound to be heavy, it does not appear to have been sufficiently realised, however, that in the case of a growing company, the wealth tax does nothing more than to take away a portion of the development rebate of 25 per cent on the original value of new equipment. In so far as the impost on companies penalises stagnant concerns, it is perhaps all for the better. The exemption of new and losing firms and of inter-corporate holdings from the operation of the wealth tax goes far towards meeting some of the criticisms. The working results of nearly all prominent non-textile companies for the past accounting year indicate that most companies can well afford to pay the levy without anything more than psychic damage.

Among the other factors responsible for the low spirits in Dalal Street, apart from settlement considerations, is the almost continuous inflow of unfavourable reports from the cloth market. Mills are reported to be keen on getting rid of their excess stocks at discounts ranging from 1 to 5 as per yard. Consumers' demand appears to have become sluggish owing to the general rise in the cost of living, particularly of food items, while traders and producers are hit hard by monetary stringency. In the export market, Bombay Dyeing appears to be doing quite well but on the whole, developments have not been exciting. The expe-

rience of 1954 and 1955 suggests that the demand for cloth may revive significantly only when prices of foodgrains come down to reasonable levels or, alternatively, remain stable while incomes rise significantly. Since neither of these developments can be expected in the near future, Textiles are bound to lie low for a while.

The decline in copper prices and the announcement of the U K Board of Trade that it will sell 10 per cent of its strategic stockpile of copper, roughly 2,700 tons, from October onwards has led to further weakness in Indian Copper.

The only bright spots in this gloomy picture is Shipping, which is going to be exempted from the wealth tax, and the recent conversion issues of National Carbon, G K W, and Hindustan Lever. Most Tata shares, too, have been steady.

The Interim report of the Life Insurance Corporation reveals the extent of the support it has lent to the capital market in recent months. As between September 1, 1956 and June 30, 1957, its holding of private securities expanded by Rs 8.62 crores, of which Debentures accounted for Rs 1.40 crores, Preference shares for Rs 1.81 crores and Ordinary shares for Rs 5.61 crores. State Government securities are the other principal beneficiaries of LIC's investments; their holding increased by Rs 9.19 crores. As on June 30, the Corporation held Rs 171 crores of Government of India securities, Rs 44 crores of State Government securities, Rs 32 crores of Government guaranteed and other approved securities, and Rs 63 crores of private securities, consisting of Debentures Rs 21 crores, Preference shares Rs 14 crores and Ordinary

shares Rs 28 crores.

Loan Subscriptions

The two new loans have been subscribed to the extent of nearly Rs 106 crores, conversions accounting for Rs 45 crores and cash for the remainder. Returns for the week ending August 9 indicate that the Reserve Bank and State Bank have probably subscribed Rs 15 crores and Rs 20 crores, respectively, out of the total cash subscription of Rs 61 crores. The fall of Rs 21 crores in net deposit liabilities of scheduled banks perhaps implies an approximately equivalent subscription by non-banking institutions. The gilt edged portfolio of banks has expanded by only Rs 6 crores, a figure which obviously does not include the State Bank's subscription. Their balances with the Reserve Bank have, however, declined by Rs 23 crores. Even this 'loss' of banking funds has been made possible only by increased borrowing from the Reserve Bank to the tune of Rs 33 crores, of which advances against usance bills account for Rs 22 crores, and by reducing call and short money by Rs 9 crores in spite of an increase of Rs 2 crores under that head of the State Bank.

The cash subscription has, therefore, not merely failed to come up to the Budget target of Rs 68 crores but has also revealed the banks' inability to take up relatively low yield gilt-edgeds when they are heavily burdened with high yield advances!

External Drain Slows Down

Reserve Bank returns, for the week ending August 18, show that 'Balances held abroad' have declined by only Rs 1 crore to Rs 17 crores against a weekly average of