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On the Economic Theory of Income Measurement

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The concept of income is a very frustrating one for, although simple in its central meaning, it is incapable of exact measurement, in practice, until after the event.

Income for a period is accepted to mean that maximum value which a person can consume during that period and still expect to be as well off at the end of it as he was at the beginning. Taking wealth to mean purchasing power and assuming constant money values and interest rates, one central difficulty remains and that is the question of time. Which period of time is to be taken? From which point in time is it to start and at which point is it to end?

For the individual, logically, should this not be his life-span? The total receipts during that life-span would represent his total income for that period, so that his income for any particular period, be this a week or a year, would be the difference between the capitalized values of his receipts at the beginning and at the end of the week or year. On the assumptions made, and discounting the expenditure incurred in enabling that individual to earn part or all of his receipts, this difference would represent his weekly or annual income and would of course be a constant quantity.

The same reasoning is applied in determining the income for any desired period, and the capital value at any point in time, of any asset or group of assets. The total net receipts flowing from the asset or group of assets, less the purchase price, plus the net price received on sale would represent that asset’s total income. The value of the asset at any point of its life would be the capitalized money value of its future net receipts and its income for any period the difference between the capitalized money values at the beginning and end of the period.

But it is obvious that this post-mortem determination of capital value and of income is of no value for practical purposes and is nothing more than a dead-end academic exercise.

Determination of capital values and of incomes could be accurately anticipated, assuming perfect knowledge of the future. Because of the unrealdies inherent in these assumptions and of the difficulties in adequately providing for them, Prof. Hicks rejects the income concept in advanced theoretical analysis. But, although the technical tools at present at our disposal may not permit a more fruitful use of the income concept in the theoretical field, this does not mean that approximations to that concept in determining income and capital values are not invaluable guides to the successful management of one’s affairs and of business enterprises.

The three basic approximations that have to be made are estimated in respect of prospective net receipts, changes in the rates of interest and changes in the purchasing power of the currency.

For the individual, on the basis of these approximations, his income becomes a standard stream of values whose present capitalized value equals the present value of the stream of net receipts which is actually in prospect. The actual stream is replaced by a standard stream whose distribution over time has some definite standard shape. Income is not what a person actually receives in the current week or year, but how much he would be receiving if he were getting a standard stream of the present values as his actual expected receipts.

However, one’s income, being of interest to oneself and to one’s family only, is not subjected to outside scrutiny as to its exact measurement. Its measurement is of course necessary for taxation purposes but the considerations that apply here, being determined by law, are of an entirely different order.

In the case of firms, however, with the separation of the managerial function from proprietorship and the development of large-scale enterprise, measurement of income is essential. It is usual to accept the premise that this measurement being required for different purposes can be differently determined, depending upon the purpose for which it is required. It is true that financial accounts are prepared, inter alia, for management to account for their stewardship, that they are used for the determination of the annual distribution to shareholders for determining the firm’s tax liability. I cannot see, however, why the ultimate rationale underlying these uses is different from the basic purpose of income measurement which is to provide a yardstick of management performance, viewed not so much in relation to past history but in making full use in the future of the effective resources at its disposal. The scarcity of resources and their concentration in a small number of giant firms means that their proper utilisation is not only of interest to the firm’s shareholders but to the

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beginning after December 31, 1963 for contributions paid in taxable years beginning after December 31, 1961. Under the prior law the availability of excess contributions paid in 1962 which could not be deducted by 1964 would expire. The 1964 Act permits the further carry-over of such excess for three more years.

Sec. 209(e) provides that a taxpayer will receive no charitable deduction for a gift of a future interest in tangible personal property while the taxpayer or one of his relatives has the right of possession and enjoyment of the property. The charitable contribution for the future interest is not considered to have been made until all interest in and rights of possession or enjoyment of the property have expired or are held by a person other than the donor or a relative of the donor as described in Code Sec. 267(b). This is a reversal of the treatment accorded such gifts under the prior law when a taxpayer who gave property to a charity and retained the use and enjoyment of the property for himself or a relative for life or for some other period, could receive a charitable deduction at the time the gift was made. Sec. 209(e) applies generally to transfers of future interests made after 1963 in taxable years ending after 1963. Transfers made before July 1, 1964 where the only intervening interest is a nontransferable interest retained by the donor for his life (or the donors' joint lives in the case of a joint gift by a husband and wife) are excepted from the application of this section.

Unlimited capital loss carryover for individuals and noncorporate taxpayers. Prior to the 1964 Act all taxpayers could carry over a net capital loss to the five succeeding taxable years as a short-term capital loss. The available loss carryover was first applied against the net short-term capital gain and then against the net long-term capital gain and, in the case of an individual or other noncorporate taxpayer, it was then applied against ordinary income limited to the extent of $1,000 income in a taxable year. Corporate taxpayers still retain the same five-year capital loss carryover.

Sec. 230 of the 1964 Act gives individuals and non-corporate taxpayers an unlimited carryover period. Under the provisions of this section net capital losses will be treated as long-term or short-term as determined from their origin. A net long-term capital loss carryover will be applied first to reduce net long-term capital gains, next to reduce net short-term capital gain and next to $1,000 of ordinary income. In a taxable year in which a taxpayer sustains both net short-term and net long-term capital losses, such net losses may be applied against $1,000 ordinary income. Because of the provision that net loss carryovers retain their character as to long-term and short-term it is necessary to define the order in which they will be applied against the $1,000 ordinary income. This is done in the new law which provides that the short-term loss shall be so applied first.

This new provision is effective for taxable years beginning after December 31, 1963. The unlimited loss carryover also extends to capital losses which occurred in an earlier year, if, under the old five-year rule, the loss is eligible to be carried to the first taxable year of the taxpayer beginning after 1963. Such losses will be treated as a short-term capital loss occurring in such taxable year and can be carried forward until applied.

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community as a whole who is interested in their optimum allocation.

Management is only successful insofar as it is making the most profitable use of its resources; I do not see why a fair distribution to shareholders could not be determined in relation to a true measurement of income, bearing in mind the necessity of retaining sufficient liquid funds for future operations; income, for taxation purposes, is in any case distorted by various devices established by law; the figure one starts with is widely different from that arrived at for tax liability; so, why not start with the correct measure of income?

The fact that economic concepts, being relatively new, have to battle against entrenched traditions which have become embedded in legal doctrine, should not detract from the basic realisation that there can be only one measure of income over time. Therein lies the rub, for it is the time factor that is at the basis of the controversies that rage between economists and accountants as to the true concept of income. The real versus the apparent money measure of income, the inclusion versus exclusion of capital gains and the accrual versus realisation as the criterion for timing of a gain or loss— all these flow from the arbitrary period of the year being taken as the determining time rod. Investment is in fact a continuous process and, in the long run, economic and accounting incomes are bound to coincide; in the long run, too, the distinction between capital and income, about which so much heat is generated, is found to be illusory for, in the long run, it doesn't matter

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PERT—Accounting for Dynamic Management,
The Texas Certified Public Accountant,

PERT was developed by the U.S. Navy Special Projects Office for use on the Polaris missile program. The technique has enjoyed widespread and enthusiastic acceptance as a tool of management. This and other quantitative techniques are challenging the adaptability and creativity of accounting.

PERT is a system whereby the minimum time required to complete a series of dependent tasks can be planned. The first step is to prepare a detailed, sequentially arranged chart of all the time-consuming events and activities. The chart will contain many paths, or chains of sequential events and activities, which indicate concurrent accomplishment of work. The chart, or network, should be reviewed carefully to determine that the event sequence is realistic.

The critical path is that which requires the longest elapsed time through the network. Using the management by exception principle, it is the focal point of managerial attention and control. All other paths will require less time than the critical path and are called slack or surplus paths. Slippage along the critical path affects project completion time but delays along slack paths will not have adverse affects. If the program is to be accelerated, it is manifest along which path extra effort must be exerted to gain time, and conversely, where additional resources would result only in increased costs without concurrent reductions in overall project time. This information permits management to determine readily the impact of progress reports on future performance.

Further information is possible with the use of probability theory. The probability of completion of the project within other time intervals permits an estimation of meeting a given schedule. Another use is in the determination, and subsequent control, of slack in the process. It is important that management be alert to the possibility of a negative slack, or slippage, condition.

Computers are available to perform the necessary computations. The accountant needs only to have a knowledge of the basic mathematical concepts involved to quantify the uncertainty and risk inherent in business operations. To retain membership in the management team, accountants must remain alert to innovations such as PERT.

The successes of quantitative techniques may accelerate the trend toward integrated, computerized, information systems. Since most of these require different types of basic information, a facility which accommodates manual computation only often stultifies the analytical process. Thus there is a growing need for accounting models which lend themselves to rapid and diversified information retrieval processes. “To the extent that PERT motivates further research on, and subsequent development of, new, sufficiently flexible accounting systems, it may contribute far more to accountancy and management than will be derived from use of this particular quantitative technique alone.”

“...You must act in your friend’s interest whether it pleases him or not: the object of love is to serve, not to win.”

Woodrow Wilson

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because income in excess of expenditure (capital) is apparent to all.
Income should be measured in such a way as to give a true indication of the utilisation of resources, to provide a basis of ensuring that they are being fully used.

The business world is moving towards the more dynamic approach of maximising the return on its resources, approach which has necessitated the revaluation of assets at current values and the realisation that future and not past performance (bygones are bygones) is the true criterion of successful management.

The dynamic use of the income concept which has, at its core, future projections rather than past historical records, is not sufficiently emphasised in its current meaning, as being the maximum that a person can consume during a period and still expect to be as well off at the end of it as he was at the beginning. This definition—rather backward than forward looking in the sense that it does not explicitly include the idea of future expectations—appears to me to be in need of revision.

Source Material
J. R. Hicks, “Value and Capital,” Ch. XIV (on Income);
Erik Lindahl, “The Concept of Income” (in Essays in Honour of Gustav Cassel);