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# THE PROBLEM OF INTEGRATING MICROECONOMICS WITH MACROECONOMICS

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THE last few decades have registered attempts on the part of some economists to bridge the gap between microeconomics and macroeconomics. The results so far have not been encouraging. One is tempted to ask: is this because of half-hearted attempts? Or is it because the methods used might not have been the best or the most conducive to the construction of an appropriate bridge?

Before answering these questions it would not be out of place, I think, to give a brief account of the *raison d'être* of macroeconomics and the importance it has acquired in a short time. We have to go back to the Physiocrats and particularly to Quesnay's *Tableau Economique* to discover the origins of macroeconomic analysis. For the first time we find a model of the flow of income in the economy; for the *Tableau* was not concerned only with the allocation of resources but also with the size of the net product. This was a truly macroeconomic model despite its limitations due to the Physiocrats' belief in the unique productivity of land and the prime importance they gave to consumption in maintaining the circular flow of income.

Unfortunately the times were not ripe yet for macroeconomics to flourish. The main setback was inflicted by J.B. Say and his Law of Markets, which ironically was derived from the basic relationship established by the Physiocrats, but emphasised that production automatically generated the purchasing power required for consumption. Later, when Ricardo and Mill accepted Say's Law and concluded that overproduction and over-accumulation for the economy as a whole was impossible, macroeconomic analysis could hardly make further progress. Even Marshall accepted implicitly the stand taken by his predecessors, and except for the theory of the general price level, his analysis is essentially microeconomic.

However, the main challenge to Say's Law came from the proponents of the under-consumption doctrine on the one hand, John A. Hobson, William Roscher and Thorstein Veblen, and on the other, from the proponents of the disproportionate investment doctrine, namely, Tugan-Baranowsky, Arthur Spiethoff and Joseph Schumpeter. It was mainly due to these economists that the problem of economic crises found its place in the economic history of the period from 1870 to 1914. Schumpeter (and of course, Mitchell) emphasised that cyclical fluctutations were an inherent part of the growth process in a changing economy. Unfortunately cycle theories until the 1930's were regarded only as a 'fringe' matter, useful perhaps to explain positions of disequilibrium, but not important enough to form an integral part of economic life itself. In other words, as long as it was held that the economic system inevitably tended towards full employment equilibrium, cycle theories had limited validity.

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There are, of course, enough reasons to explain the lack of awareness of macro problems on the part of classical and neo-classical economists. For one thing, these problems rarely reached such dimensions as to command the attention they deserved. Till 1914 economic fluctuations, at least in Europe, were of short duration. At the same time trade unions were not strong enough to affect public policy; most governments, in fact, remained uncommitted to the problem of full employment till the second World War. Scanty statistics about national income and output forced cycle theorists to resort to generalisations which evidently weakened their case.

The Great Depression of the 1930's created the right climate for the emergence of contemporary macroeconomics. It was evident that traditional microeconomics provided tools that were incapable of coping with a depression of such magnitude and duration. Persistent unemployment on a large scale could never have been forseen by the prevalent economic theory which as a consequence fell in disrepute. John Maynard Keynes was the man to salvage economics and to provide a theory with more realistic tools. His economics was in a sense a complete break from the past. It was also a rejection of the *laissez-faire* doctrines which moulded economic thought for so long. Keynes, in fact, produced a body of economic theories which represented an attempt to create an acceptable political economy at a time when people needed more action than analysis. As one economist very aptly put it, Keynes 'was able to give intellectual expression both to despair and hopefulness, while his use of aggregates and global figures seemed to make everything disarmingly simple.'[1]

Of course, the new economics were not greeted with universal approval. The critics were numerous; some went so far as to hold that Keynes established merely diplomatic relations between standard theory and the business cycle. Others charged him with having arbitrarily selected his variables and constants.

[1] Ben B. Seligman, *Main Currents in Modern Economics*, Free Press of Glencoe, 1963, p. 746.

Notwithstanding the criticisms of the traditionalists, the aggregate economics of Keynes and his followers have come to stay. Micro-theory continued to retain its importance but within well defined limits. It could not pretend to understand general departures from full equilibrium. On the contrary, aggregate economics of full employment came to the fore because, among other things, it afforded a short cut means to account for the general level of employment and to provide tools for forestalling depressions.

In spite of the evident success macroeconomics has enjoyed during the last decades, some economists from time to time express serious doubts about the reliability of a number of its assumptions and hypotheses and raise the question whether serious attempts ought to be made to integrate microeconomics with macroeconomics.

In order to be in a better position to appreciate their views, it would be helpful, I think, if we recall the general framework of macroeconomics. It consists of:

Truisms: These are quite abundant; for example, savings must equal investments for the country as a whole though for individuals one might exceed the other; the exports of all countries must equal their imports though this might not necessarily be true for particular countries. The importance of these truisms is to present to our mind some fundamental truths in the economic system which have to be taken fully into account by economic analysts.

Next come the assumptions. One assumption holds that the composition of many aggregates remains relatively stable or varies systematically with changes in the magnitude of the aggregates. It is also assumed that under certain conditions it is possible to formulate aggregative theories of behaviour in the establishment of relationships among economic variables which express motivation and behaviour.[2]

Furthermore, in macroeconomics one ignores the effects on aggregate consumer demand of changes in the relative prices of goods and services. Though price changes result in redistributing total real demand among the various commodities, the total *volume* of demand remains unchanged. Hence, price changes as such do not disturb the stability of demand as a function of real income.

The critics of macro-theory, as it stands at present, argue that it assumes too much. They quote in particular the post-war experience in the U.S.A., when the relative prices of different categories of consumer goods underwent substantial changes and these were accompanied with changes in aggregate consumption. This happened during the upswings and down-

[2] G. Ackley, *Macroeconomic Theory*, Macmillan, New York, 1961, pp. 19-21.



swings of minor business cycles. If that was the case, they argue, then we can hardly feel sure anymore that aggregate real consumption is always independent of relative prices.

But the more serious criticism against macroeconomics is because of the inadequacy of some of its fundamental assumptions to produce predictions for economies with insufficient capital. One could point out that in such economies changes in the relative prices of certain commodities might be strong enough to affect the total volume of demand. Moreover, for an economy which is passing from a relatively primitive stage to a more developed one, aggregate output as a bundle of all outputs is meaningless. One could also argue that a shortage of capital in such economies would be more uneven in its impact on the economy that one set by a shortage of labour because the latter is more mobile and adaptable than capital.

Keynes is partly to blame for such criticism because of his implied conviction that the 'new' economics had universal validity. Present-day Keynesians, however, do not quarrel with this criticism, and almost everyone would agree that microeconomics which has been so useful for the analysis of the systems of the more developed and industrialised countries, is deficient in many respects when applied to the economies of the developing countries. Even such a universally accepted pointer of economic growth as 'income per capita', has to be substantially qualified when it is used to measure the growth of the economiesof these countries.

But in order to make up for these shortcomings, is it necessary or even useful to integrate microeconomics with macroeconomics? If the answer were in the affirmative, we should not be satisfied before we see established a general theory which would embrace both individual behaviour, outputs, incomes as well as the sum of the averages of the individual results, but the generality of such theory would have little substantive content and would destroy the very essence of macroeconomics.

A glance at the more important contributions which were meant to build a bridge connecting micro- with macroeconomics, reveals that for various reasons they were not successful in achieving their purpose. They range from a proposal to build a full scale macroanalytic model of the U.S.A. economy to an ingenious analysis aimed at incorporating income distribution theory into macro-theory. Thus G.H. Orcutt in 1962 proposed that the federal government of the U.S.A. obtain 'a highly useful model of the U.S. economy by a suitable effort costing less than 10 million dollars per year for ten years or so'. He was convinced that such model 'could provide an instrument for combining survey and theoretical results obtained on the micro-level into an all embracing system useful for prediction policy experimentation and analysis on the aggregate level.'[3]

S. Weintraub[4] was perhaps the first to seriously try to incorporate the theory of income distribution into macroeconomics. But once more it seems that he was after establishing a 'general' theory. He was criticised for mistaking a union between the price and output aspects of macroeconomics for a true union between micro- and macroeconomics.[5]

The latest work on the subject is a contribution by two followers of Weintraub, P. Davidson and E. Smolensky.[6] They work on the hypothesis that the distribution of income in the economy reflects the total revenue at the firm level. On this hypothesis they derive the aggregate demand and supply functions for the whole economy. Aggregate demand and supply are the result of the aggregation of the demand and supply curves of all the industries. Thus, they seem to be attempting once more to establish a general theory.

A realistic approach to the whole problem has been advanced by Abba Lerner,[7] who, though at first seemed hopeful of a possible union between micro- and macroeconomics, in his more recent contributions appears very doubtful whether such union is feasible or even desirable. He argues that as long as the economist realises that he cannot consistently keep to microeconomics or consistently concentrate on macroeconomics, there is no need of combining the two in a single set of equations. Lerner believes that it is more important for the economist to enquire whether macro- or microeconomics cannot be treated as the extremes of a continuum or a spectrum. In a given situation if the conditions are such as to indicate that the macro aspects are more relevant than the micro aspects, one could safely make use of macro-analysis, and vice versa.

In spite of the doubts about some of its postulates and hypotheses, macro-theory has made much progress both in the quantity and quality of macroeconomic forecasting. In particular, forecasting of national income trends which has largely been confined to develop *ex ante* patterns out of *ex post* experience, now is being replaced by *ex ante* forecasting models based upon scientific enquiries. Numerous econometric models have been developed and their number will increase in the future.

But in spite of all this progress, in certain situations we do still require some disaggregation in order to explain the behaviour of aggregates.

[3] G.H. Orcutt, 'Microanalytic Model of U.S. Economy', *American Economic Review*, May, 1962.
[4] *An Approach to the Theory of Income Distribution*, Chilton, 1958.
[5] Abba P. Lerner, 'On Generalizing the General Theory', *A. E. R.*, 50, 1960, p. 132.
[6] *Aggregate Supply and Demand Analysis*, Harper and Row, 1964.
[7] *Op. cit.*, pp. 133-142.



This, as mentioned previously, is particularly relevant for the understanding of the problems confronting the developing countries. Fortunately the more sophisticated macroeconomic models are made, or could be made, to involve sufficient disaggregation to render them meaningful and useful. One could mention as an example investment in housing. This type of investment, which is subject to demographic and institutional influences, is often treated separately from other forms of investment.

Furthermore, we must regard micro- and macroeconomics as complementary rather than as two exclusive compartments. The following instances could make this point much clearer. Nobody today questions the importance of national income and product accounts as a means of measuring fluctuations in the aggregate economy. But whenever we want to analyse their causes and try to discover the remedies we still need to use the series dealing with the micro-concepts of economic life.

Another illustration which is perhaps more significant could be derived from empirical studies made with reference to the wage theory.[8]

The Cobb-Douglas empirical production function, based on a 24 year period ending in 1922, which was later supplemented by the Kuznets series (1919-28) and the U.S. Department of Commerce data (up to 1957), suggests a fairly consistent ratio of return to labour and capital over time. But though the aggregate share of labour shows a fair degree of stability, its largest component parts are evidently less stable. This is surely a case where disaggregation can bring to light some important facts completely concealed in aggregation.

On the other hand, the consistency of the ratio resulting from the aggregation would justify us to conclude that the quantitative effect of collective bargaining on the real wage level over the long run (as opposed to its qualitative effect) has not been substantial enough to warrant us to dismiss traditional analysis on the microeconomic level. In other words, though it appears that in modern times, on account of collective bargaining, wage decisions are not any more the result of market forces, yet empirical evidence on the macroeconomic level supports the conclusions of traditional economic theory.

So it seems that the conclusion should be clear enough. Attempts to integrate micro- with macroeconomics are not of much use to the progress of economics. Both can flourish side by side, both could be useful as long as we keep in mind that the boundary between the two is not real, but fictitious.

[8] Cfr. M. Carter, *The Theory of Wages and Employment*, D. Irwin, 1959, Ch. 11.