11 Reflections on the Rolls-Royce Experience

This chapter\(^1\) will discuss the general character of economic thought and analysis employed in studying the industrial environment, the nature of this environment as revealed by this study of a large industrial concern, and the evolution in analytical technique which appears to be necessary if a wider and more thorough understanding of human behaviour in the industrial and commercial environment is ever to be obtained.

Most economists generally concern themselves with what they have defined as the economic aspects of human behaviour, and because it is obvious that those aspects of human behaviour which do not find some economic context seem to be so few, fall readily into the habit either of disregarding non-economic motives entirely, or of establishing a convenient rate of exchange between the economic and the non-economic motive. In so doing they underrate the power of those motivations of human behaviour which operate in the economic sphere but which cannot, by the wildest stretch of the axes of their charts, be regarded as the result of a rational assessment of economic advantage by the individual, whether his actions concern only himself or some organisation on whose behalf he is acting.

Two broad fields of economic thought can be distinguished. The first, and most important, concerns itself with the behaviour of the individual economic unit, and attempts to construct a complete and consistent explanation of behaviour in the economic context. The second is concerned with the broad aggregates of human behaviour – the statistically measurable economic environment which is the compound results of the behaviour of individuals and organisations. The scientific analysis of these patterns of behaviour is almost completely dependent on measurement, and from such measurement alone can useful conclusions be drawn about trends and tendencies. These conclusions provide an adequate foundation for the construction of a useful theoretical apparatus provided that the various statistical
criteria of accuracy, completeness, frequency of measurement, etc., are satisfied. It is an example of what Sir Robert Watson-Watt summarised so neatly as ‘the goodness of measured fact’. Aggregates and rates of change of physical factors which may have considerable economic significance – population, the capacity and movements of freight cars and cargo ships, the numbers of given types of machine tools employed in a factory or a country – these can be and are measured. It is also possible to measure aggregates and rates of change of purely economic phenomena which may or may not be directly related to physical factors. Such measurements may be primary or secondary. A primary measurement, for example, may be defined as the volume of bank deposits, the revenue and expenditure figures of trading enterprises or a State department. A secondary measurement would include such things as the income of a trading enterprise or community, the cost of production of an article, the capital invested in an enterprise or industry. Such measurements are defined here as secondary because the monetary figures on which they are based depend without exception on some value judgement by the accountant or cost accountant which may be quite arbitrary within wide limits.

Value judgements may enter into primary measurements to some extent when there is some uncertainty as to whether or not to include a particular item, but such uncertainty can usually be eliminated statistically with considerable accuracy and the order of magnitude of error is comparatively small.

There is also a third type of measurement, with which the economist has only recently become familiar. These are the primarily physical indices of production volume and efficiency – man-hours, machine-tool hours, records of stock – which have been developed as instruments of control. Without these the more complex types of industrial enterprise find their purely economic or financial measurements inadequate as instruments of executive control because of the delay which occurs between the operations concerned and the appearance of the cost and financial figures which refer to them.

Both primary and secondary economic measurements are dependent upon the existence of money or money-values which relate to some process of exchange or production to which there has been an addition or subtraction of value. The economic quantities entering the process are absolute and accurately measurable. Those issuing forth from the other side are accurately measurable, but not absolute until they are so regarded for a succeeding process of production or consumption. The