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COST, PRICES, AND PROFITS: THEIR CYCLICAL RELATIONS

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FOREWORD

The relations among costs, prices, and profits, which Hultgren treats in this volume, are among the most intricate of any with which students of business cycles are concerned. They are also among the most controversial. The reader, therefore, is likely to welcome both the careful compilation of data that Hultgren has made and his painstaking efforts to extract dependable generalizations from them. Many will be tempted to push the data farther and to find in them support for this or that theory of inflation or recession. Such attempts may well be justified, but those who are so inclined will do well first to ponder the difficulties that Hultgren's explorations reveal. They will, I believe, have cause to be grateful for the warnings as well as for the solid ground from which they can then set forth.

This is a field in which the analyst must generally use what statistics he can get, rather than those he would like to have. Nevertheless, Hultgren constructs a number of new measures adapted to his problem. Because available indexes of manufacturing output are based in part on data on labor input, and hence prejudice comparisons with labor input, he develops new quarterly indexes of the physical volume of sales and output in a number of manufacturing industries, independent of measures of input. These new estimates, together with those for a few industries for which adequate physical output indexes are already available, cover roughly three-fourths of manufacturing output, and the industries included constitute a fairly representative group.

The measurement of the physical volume of activity in manufacturing is only one of a number of problems of data comparability and coverage that the author encounters. The data on total costs, profits, and sales pertain to corporate enterprises, often widely diversified; indexes of output and of labor cost are compiled from

reports by individual plants or establishments, including firms that are not corporations; price quotations refer to specific products. Most of the monthly industry statistics on labor costs cover only the wages and hours of production workers, omitting the increasingly numerous clerical, sales, and other white-collar employees, as well as the growing costs of fringe benefits. Price quotations often cover a very limited range of the products of an industry, may not take adequate account of quality changes or of concessions in terms, and generally refer to goods being currently ordered rather than (as costs do) to goods being produced or delivered. Each of these matters is considered by the author and, to the extent possible, evaluated in terms of its potential effect on his conclusions.

In the face of these obstacles to precise measurement and comparison, Hultgren uses industry data chiefly in anonymous fashion. Each industry (and each cycle in sales or output) provides an observation on cost-price relations. From this collection of observations he draws generalizations with respect to cost-price behavior at large, rather than with respect to any particular industry. With this procedure, inadequacies in the data for a given industry (or cycle) are less crucial, although biases that affect the data generally can still, of course, be present. Those who are concerned with a single industry, on the other hand, may find the defects in the data too great to warrant conclusions specific to that industry. The fact that Hultgren judges them useful for his analysis is no guarantee that they will be sufficiently reliable for other uses.

Despite the limitations of the data and the restrictions they impose on empirical analysis, Hultgren extracts important findings from them. For example, in tracing the source of the well-known tendency for profits of manufacturing concerns to rise and fall with their volume of sales, he finds, first, that margins (profits per dollar of sales) also rise and fall with sales; next, that prices, at least in the postwar period, do not regularly rise and fall with sales; and finally, that unit costs tend to move inversely with sales. Hence the inverse movements in costs turn out to be more important, as a rule, than the movements in prices in accounting for the characteristic cyclical conformity of profits. Before World War II, and especially in the more severe contractions in business that the

economy experienced, movements in prices apparently contributed more to the swings in profits than in recent years.

In another respect, too, unit costs play a significant role. Their pattern, while broadly inverse to sales, is not merely an inverted replica of sales, as it would be if total costs remained fixed throughout the cycle. Instead, an expansion in sales is typically accompanied by a decline in unit costs initially, but as the expansion proceeds, unit costs tend to rise. The rise usually continues, indeed may even accelerate, after sales begin to contract, but this advance in costs frequently is reversed before the contraction in sales comes to an end. These reversals in unit costs, which may be thought of as either lagging behind similar turns in sales or leading opposite turns in sales, tend to produce opposite reversals in profit margins. That is, the cyclical upturn in costs often generates a downturn in margins before sales reach their peak, while the cyclical downturn in costs helps to bring about an upturn in margins before sales reach their trough. Prices usually do not contribute to this tendency. More often than not, they tend to offset it by continuing to rise at least as long as sales do and by declining, if at all, toward the end of the contraction in sales. But these movements in prices are typically not as sharp as those in costs. The upshot is that early reversals in margins are fairly common, particularly during expansions in sales, and they are chiefly attributable to the behavior of costs. This process has important implications for the generation of business cycles because of the importance of profits in motivating economic activity.

As already noted, Hultgren's analysis is largely carried out in terms of the upswings and downswings in the sales or output of the industry whose costs, prices, and profits are being considered. This is warranted by the important influence that an industry's volume of activity has on these variables, particularly on its unit costs. On the other hand, prices of materials, selling prices, and wage rates are often less influenced by an industry's own activity than by the general state of business. Indeed, an industry's activity itself is typically governed, in part, by the general state of business. Hence the analysis reveals a complicated set of interrelationships among the sales or output cycles of the several industries, their costs, selling prices and profits, and the general business cycle. By weav-

ing such relationships together, one can see what happens to these factors during business cycles, and why they behave the way they do.

Take, for example, the course of unit labor costs during a business cycle expansion. In the early months of such an expansion unit labor costs, as a rule, decline. This is a period when many industries, though not all, are experiencing a rise in output and sales. For those whose activity is increasing, unit costs go down because of rapid increases in output per man-hour in this early stage of expansion in their own activity and because the general labor market situation is not such as to produce equally marked increases in hourly earnings. For those whose activity is still declining, unit costs may also decline, or at least fail to rise as rapidly as before, both because output per man-hour frequently rises in the late stages of an industry's contraction, and because the labor market situation is even easier for such industries than for those that are extending their workweek or hiring more labor. As the general expansion proceeds, however, the unit labor costs of those industries that began their expansion early tend to rise, because increases in output per man-hour have become more difficult to achieve, payment of overtime rates is more common, and labor market tightness for particular trades or skills begins to exert upward pressure on wage rates. This may be balanced for a time by the declining costs of industries that are just beginning to enjoy an increase in sales. But sooner or later, increases in unit costs become more prevalent, partly because in some industries sales begin to decline. The result is that few industries fail to find themselves with rising unit costs at the end of a business cycle expansion.

What will surely be remembered as Hultgren's chief contribution in this study is his exploration of unit costs. The behavior of costs has been one of the great unknowns in business cycle analysis. Current statistical data on unit costs are rarely seen; it was only in 1961 that a federal government agency began publishing, for the first time in history, I believe, a monthly index of unit costs—labor costs per unit of output. Hultgren's work should lead to new efforts to improve the statistical base for measures of labor and other costs of production, comparable with prices. A broad program of statistical improvement in this area is needed.

GEOFFREY H. MOORE