

Illustration 10.1

The Sometimes Impossible Task of Measuring Productivity

To anyone concerned with the performance of the economy, a particular industry, or a particular firm, trends in labor productivity are of the utmost importance. In some segments of the economy, however, measuring productivity can pose an almost insurmountable problem, even at the level where one might expect that managers would have large amounts of data on labor productivity. In manufacturing, the task is relatively simple. For example, take the case of a bicycle manufacturer. The average product of labor would be calculated as the total number of bicycles produced in a period, divided by the number of workers, possibly adjusted for the production of bicycles of different quality. For firms that sell services, the problem of measurement is much more difficult.

The Wall Street Journal recently discussed some problems that US government faces when measuring productivity in the service sector.* Measures of productivity in service industries are important because of the large, and expanding, role of services in the economy—employing more than three-fourths of the labor force—and because economists have long been troubled by lackluster productivity in the service sector. The *WSJ* article noted that data for the most recent quarter indicated that productivity in service-type businesses fell at a 2.3 percent annual rate while manufacturing productivity rose 4.7 percent. The falling productivity in services was worrisome to many observers because rising productivity plays a key role in the economy's ability to generate higher living standards.

Some experts feel that the service industry gets a bum rap, and productivity in services rises faster than the data suggests. Many prominent economists believe that because of the difficulty of measuring service productivity, no accurate evaluation can be made, and service productivity might be rising faster than that of manufacturing. The chief of productivity research at the Bureau of Labor Statistics stated that productivity in many services is "simply impossible to measure." As an example, he cited the insurance industry: "Do higher premiums, which tend to boost an insurance company's revenues, also serve to boost its productivity? Or are higher premiums merely a sign of higher policy risks?" So the BLS provides no productivity statistics for the insurance sector. Other service industries whose productivity the BLS finds it impossible to measure include health care, real estate, and stock and bond brokerage. Services for which no productivity figures are available employ nearly 70 percent of all people with service jobs.

Notwithstanding the measurement difficulties, many experts believe that service productivity is rising much more rapidly than is generally believed. A Federal Reserve Board economist noted that pay for bankers had risen sharply. Since compensation growth is linked to productivity in the long run, why would employers be willing to grant consistently large pay increases where unionization is low if productivity is so poor? Capital spending rose a strong 8 percent over the past year, hardly a sign of stagnating productivity. The United States has enjoyed large foreign trade surpluses in services for several years, a possible indicator of rising productivity.

Some reasons for the tendency of the BLS to understate productivity in services can be seen in the following examples from specific industries. One is retailing. An 11-ounce can of shaving cream sells for \$1.49 in one small drug store and for \$1.29 in a larger, newer

store nearby. The larger store can sell the product at a lower price because of faster turnover and customer self-service, but government statistics treat the cheaper product at the newer store as an entirely new product, rather than as a product being sold more efficiently. Banking productivity statistics ignore the large increases in banking volume, which, if included, would surely indicate productivity increases. Computers in large trucks have decreased ton-miles per driver when they are used—surely an increase in productivity—but the decrease in ton-miles indicates a statistical decrease in productivity.

The *WSJ* article points out that services sometimes get undeserved credit for productivity gains. The growth of self-service allows retailers to increase their productivity as consumers do work previously done by employees, but the statistics fail to account for the decline in quality of service.

A later article in the *Wall Street Journal*[†] sites a new study by a management consultant firm and concludes, “US workers in major service sectors are more productive than their counterparts overseas—except in restaurants, where the French excel.” The study, based on some new statistical methodologies, concludes that “the United States has a slightly higher level of overall productivity [in services] than Germany and France and a significantly higher level than Japan and the United Kingdom.” The consulting firm stated that the US edge reflects both the way management organizes operations and the degree to which government allows competition to force businesses to be efficient. Surprisingly, worker skills and the amount of financial investment make little difference. So it appears that management has a big impact.

We thought you might be interested in some of the statistical comparisons. Comparisons in the restaurant industry are complicated because Americans spend much more than the French or Germans on full-service meals and on fast foods. So, simply counting the number of meals, American restaurants are more productive. However, a meal at a premier French restaurant such as Tour d’Argent is not the same as eating a Big Mac. Adjusting for quality differences in food and services, the study concludes that productivity in French restaurants is 4 percent higher than in those in the United States, and productivity in German restaurants is 8 percent lower. US retailers are 4 percent more productive than German retailers, 18 percent more than British, 31 percent more than French, and 56 percent more than Japanese.

Taking into account all employees, airline employees in Europe are 28 percent less productive than those in the United States. The reason for this difference, according to the study, is the deregulation of US airlines. German bank employees are 32 percent less productive and British 36 percent less than their US counterparts. The study credits automatic tellers and the widespread use of computers in the United States for these results. In the business of telecommunications, labor productivity is about equal in the United Kingdom. We should mention, before you take these statistics as absolute facts, recall the previous discussion of the pitfalls of productivity measurement services.

*Alfred Malabre, Jr. and Lindley Clark, Jr., “Productivity Statistics for the Service Sector May Understate Gains,” *The Wall Street Journal*, August 12, 1992.

†David Wessel, “US Workers Excel In Productivity Poll,” *The Wall Street Journal*, October 13, 1992.