Is Manufacturing Disappearing? Uneasiness about the state of U.S. manufacturing invites a number of alternative perspectives on the trends in manufacturing.

Bemoaning the demise of American manufacturing might simply be unwarranted. From an employment perspective, manufacturing is declining—it has done so virtually non-stop since 1953. Similar downward trends in manufacturing employment and output are clearly evident in certain industries (such as primary and fabricated metals) and in some regions (such as Ohio and Pennsylvania). Other industries and regions, however, have had relatively strong growth over the past 20 years. On the whole, U.S. manufacturing output has demonstrated remarkable long-term stability. From a demand perspective, the U.S. economy has been drifting from a manufacturing sector by examining it from several different angles.

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The Employment Perspective

The output perspective, of course, is a share of total U.S. manufacturing output is significantly declining in importance to the economy. Since 1955, manufacturing output as a share of total output has fluctuated around a mean of 24.7 percent (14.8 percent for durable manufacturing). In 1984, U.S. manufacturing represented only 0.5 percent less than its 35-year average (following a rather severe trough in 1982), and durable manufacturing output was virtually identical with its 35-year average last year (14.5 percent).

The Output Perspective

Trends in U.S. employment data and output data are not necessarily identical. If we examine the share of American manufacturing industries. In 1984, primary and fabricated metals manufacturing represented 2.5 percent of total U.S. employment—less than half the employment share it had in 1953. Virtually all major manufacturing industries, such as primary and fabricated metals, have had greater relative employment declines than other manufacturing industries. This pattern has been followed by most major manufacturing industries.

Some policymakers continue to favor the use of trade barriers to protect U.S. manufacturing industries. In some measure, this view is based on a perception of underlying weaknesses in the U.S. manufacturing sector. There is a fear that the manufacturing sector is dying—or at least, that its importance to the economy is shrinking. This Economic Commentary offers some alternative perspectives on the trends in manufacturing.

On balance, the manufacturing sector is alive and well. Indeed, the prospects for manufacturing have been strengthening over an extended period. However, the distribution of output growth across manufacturing industries is uneven, with a few traditional industries at the bottom of the growth standings. But other, less traditional, manufacturing industries are leading U.S. industrial growth. Consequently, it is necessary to qualify any analysis of the manufacturing sector by examining it from several perspectives.

The Employment Perspective

It has become commonplace for business analysts to refer to the "alarming shift toward a service economy." It would seem that this view is taken primarily from the perspective of employment. Manufacturing employment has been generating proportionately fewer jobs, on average, since the early 1960s (chart 1). As a share of total U.S. employment, manufacturing employment has fallen from approximately 35 percent of total employment in 1955 to only about 20 percent of total employment during the first half of 1985. The decline in durable goods manufacturing employment has been equally steep, falling from a share of about 20 percent of total employment in the early 1950s to near 12 percent today.

The Output Perspective

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1. Data from the first two quarters of 1985 allow us to infer that the share of manufacturing output in total output might have inched downward in 1985 due to deterioration in nonmanufacturing output. However, durable manufacturing output, which is more likely to be affected by the recession, has increased significantly in recent years. In 1984, U.S. manufacturing represented only 0.5 percent less than its 35-year average (following a rather severe trough in 1982), and durable manufacturing output was virtually identical with its 35-year average last year (14.5 percent).
In terms of employment, it can be argued that the U.S. economy has been shifting toward a service-based economy. But, in the context of relative output, no comparable shifts have thus far occurred.

The U.S. manufacturing sector has a popular image as an inefficient, resource-obese industry that is incapable of vigorous competition. The labor productivity improvement made in U.S. manufacturing, particularly since 1975, is a strong piece of evidence to the contrary.

Chart 2: Manufacturing, Durable Share of Domestic Output

Manufacturing’s share of output has fluctuated around its mean value, yet the proportion of labor resources consumed by manufacturing has been dropping. This suggests that the manufacturing sector is building strength, rather than deteriorating, as labor productivity in U.S. manufacturing must have demonstrated above-average growth over the past decade.

Since 1980, manufacturing industries have exceeded the average rate of labor productivity growth in the United States. Moreover, the pace of productivity growth in manufacturing relative to the average U.S. industry actually accelerated over the past 10 years. The rate of growth in durable manufacturing productivity has also been more than twice that of the average U.S. industry over the past decade.

The Demand Perspective

Another popular, but possibly mistaken, notion is that foreign competition is responsible for the disappearance of the manufacturing sector. It is true that the United States is currently at a disadvantage in international markets. Chart 4 illustrates the extent of the decline in our manufactured goods in international markets relative to the total value of domestic manufacturing.

Whereas the United States had typically been a net exporter of manufactured goods, the trade balance of manufactured goods has favored foreign producers since 1982. Undoubtedly, the 34 percent appreciation of the dollar has been a major cause of this reversal. Foreign consumers found U.S.-made products considerably more expensive, while U.S. consumers found foreign-manufactured goods increasingly less expensive.

But the damaging influence of an increased foreign presence in manufacturing markets is inconsistent with the long-term stability in U.S. manufacturing output noted earlier. Consequently, the growth in foreign-manufactured goods in America could be a result of growth in the total demand for manufactured goods by U.S. consumers and industries.

If we track the share of real goods sales relative to total U.S. sales, a surprising growth pattern is evident (chart 5). Since 1977, the United States has been consuming above-average levels of goods. In fact, the share of goods in final sales reached a post-World War II high last year and will probably remain near this relatively high level in 1985.

Stronger growth patterns are evident in the durable goods sector. Between 1960 and 1963, durable goods sales represented 15.75 percent of total U.S. sales. The durable goods share of total sales topped 20 percent during the late 1970s and, in 1984, matched a post-World War II high of 20.3 percent.

A number of factors probably have encouraged the long-term growth in goods demand. For example, the upward trend in the share of durable goods to total final sales may be explained by the emergence of the “baby-boom” generation and by a proportionately greater share of single-person households. An increase in household formations produces a strong appetite for durable commodities, such as household furnishings, appliances, and automobiles. Buying habits affected by uncertainty about future inflation, a 1979-1980 phenomenon, would also tend to favor goods markets, particularly durable goods markets, because of their inflation-fudging characteristics.

The relative price effects from the high value of the U.S. dollar and investment tax credits for capital goods are more recent influences on manufactured goods sales. The strength of the dollar depresses the cost of imports. Imports naturally favor goods rather than services (insofar as goods are more easily storable and transportable). Consequently, the strong dollar favors goods consumption over the consumption of services. The increased demand for foreign goods would in some measure spill over into domestic markets and put further downward pressure on U.S. manufactured-goods prices relative to U.S. services prices. In addition, a liberalization of taxation credits on capital equipment as a result of the Economic Recovery Tax Act of 1981 (ERTA) further encouraged the demand for durable goods through what was in essence a relative price adjustment.

Regardless of source, which admittedly is only speculation, the impression of long-term trends in the U.S. manufacturing sector viewed from the perspective of demand is different from employment data. From a consumption point of view, the United States has actually been moving from a service-based economy to a goods-based economy.

The Industry Perspective

It should be emphasized that this appraisal of the manufacturing sector is a broad, overall view. There are certain industries within the manufacturing sector that obviously are not enjoying output stability. In the 1960s, the growth of manufacturing output equaled the U.S. industry average; it exceeded the U.S. industry average in the 1970s and has continued to do so in the 1980s. But this aggregate view obscures the dispersion of growth within individual manufacturing industries. For example, since 1975 electrical machinery, chemicals, and printing and publishing industries have led U.S. industrial growth (chart 6A); two manufacturing industries, however—primary metal and fabricated metal products—have seriously fallen behind. In fact, primary metal producers are now generating one-fifth less output than they did in 1975.

Since 1979, the dispersion of manufacturing growth has been somewhat greater (chart 6B). Again, primary metal and fabricated metal industries registered sizable production declines compared to impressive gains in the electric machinery and printing and publishing industries. In short, primary and fabricated metal industries which, combined, represented less than 10 percent of American manufacturing output and only 12 percent of American manufacturing employment in 1979, are not characteristic of the manufacturing sector.

The Regional Perspective

The distributional inequities that may have contributed to the view that the manufacturing sector is shrinking are compounded by the uneven geographical distribution of the manufacturing sector. States in the East North Central region of the United States, the so-called rust belt, are more heavily occupied by manufacturing industries than the rest of the country (chart 7).

The relative price adjustmen

Chart 5: Shares of Total Sales

Chart 6: Production Growth in Manufacturing

Perspective of Demand