The Manufacturing Sector

Remarks of
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Today I would like to discuss the role of manufacturing in our economy. The past few years have been a tough time for this sector. Manufacturing employment has fallen by 2.7 million over the past 36 months. It is now at its lowest level in 45 years. This decline has, without doubt, been a source of hardship for many families. I would like to talk with you about why it has occurred and the challenges it poses for economic policy.

To understand these developments, it is crucial to consider both the impact of the recent business cycle on manufacturing and the economy's longer-term trends.

The Recent Downturn

Let me begin with the recent business cycle. Over the past several years, the U.S. economy has been suffering from the effects of four adverse shocks—the end of the high-tech bubble, corporate governance scandals, terrorist attacks, and slow growth among many of our major trading partners. Offsetting these contractionary shocks has been expansionary monetary and fiscal policy. Interest rates cuts by the Federal Reserve and tax cuts proposed by the President and enacted by Congress have moderated the adverse impact of these shocks on employment and incomes.

The recent recession was mild by historical standards, if we judge by real gross domestic product, the broadest and best measure of economic activity. Real GDP fell by less than 1 percent from its peak at the end of 2000 to its trough in 2001.

But this recession was not mild for the manufacturing sector. Manufacturers felt the economic slowdown earlier, longer, and harder than the rest of the economy. Manufacturing output started to decline in July of 2000, falling about 7 percent by its trough in December 2001. Manufacturing output has grown over the last two years, but until recently, the growth has not been robust, and the number of manufacturing workers has continued to decline.

The disproportionate impact on manufacturing largely stems from the nature of this recession. In typical economic downturns, consumer spending and housing bear a significant share of the decline. This was not true in the recent downturn. The strength of the housing sector is particularly unusual. In a typical recession, residential investment declines substantially. By contrast, if you look at the data on residential investment from the past few years, you cannot detect any slowdown at all.

The other side of the coin is that, during this business cycle, we experienced pronounced weakness in business investment and exports. These two components of GDP are closely tied to manufacturing. Nearly all business investment goods and most nonagricultural exports are manufactured products.

In light of the shocks that drove this business cycle, it is no surprise that business investment and exports were hit hard. The overhang from the high-tech bubble of the 1990s and the corporate governance scandals slowed the pace of business investment over the past few years. The uncertainties following the 9/11 terrorist attacks may also have played some role. In addition, slow growth among our major trading partners, notably Japan and some major economies in Europe, has reduced the demand for our exports.

I am pleased to report that this short-term challenge is well on its way to being resolved. There is much evidence that the economy is picking up momentum after three years of sub-par growth. Real GDP grew at an 8.2 percent annual rate last quarter. No one should expect this amazing growth rate to continue, but most private forecasters believe growth will be robust over the coming year.

There are many reasons for this, including the underlying flexibility of our free-market economic system and the expansionary monetary policy of the Federal Reserve. An important measure of credit should also be assigned to the President's economic policies, notably a series of pro-growth tax packages. The continued strength of consumer spending and the rebound in business investment is in part attributable to the Jobs and Growth package enacted in May. This tax relief was aimed at supporting household spending by returning money to the people who pay the taxes. It was also aimed at lowering the cost of capital to encourage businesses to invest.

Like the overall economy, conditions in manufacturing are also starting to improve. Manufacturing production has edged up over the past several months. Shipments of capital goods have strengthened markedly since the summer. Survey evidence from purchasing managers suggests strongly increasing orders for manufacturing industries.

The fundamentals are in place to expect continued firming. The cost of capital remains low, and corporate profits have been increasing, pointing to a further expansion in business investment. In addition, forecasts indicate that growth is picking up in Europe and Japan, suggesting that our exports should revive as well. As business investment and exports expand, the firms that manufacture these goods will see more customers coming through their doors.

In other words, as the economy recovers from its recent short-run difficulties, the manufacturing sector will share in the increased prosperity. But these short-run developments are overlaying long-run trends that have, over the past half-century, reduced manufacturing's share of total income and employment. These trends may well continue over the coming decades. Let me therefore turn to these long-term trends and the best way to respond to them.

Rapid Productivity Growth in Manufacturing

When economists talk about the long run, they mean the time horizon that captures the advance of living standards from generation to generation. The single most salient fact about the long-run performance of the U.S. economy is strong growth in productivity. Strong productivity growth has been the dominant long-run trend affecting manufacturing.

From 1950 to 2000, output per hour of work increased by about 2 percent per year in the nonfarm business sector. Compounded over many years, this means that each hour of work now produces about three times as much real value as it did a half-century ago. This rapid growth in productivity has led to higher real wages and living standards for American families.

Over the same period, manufacturing productivity has increased even more rapidly--at an average annual rate of 2.8 percent. As a result, an hour of work in manufacturing produced four times as much in 2000 as it did in 1950. The disparity between manufacturing and the overall economy is even larger recently. From 1990 to 2002, manufacturing productivity grew at 3.9 percent per year compared to 2.3 percent for nonfarm business overall.

When a good is made with a more productive technology, the costs of production decline, and its price tends to fall. Because of the relatively fast productivity growth in manufacturing, manufactured goods have steadily become cheaper relative to services over time. We have all witnessed the incredible declines in the prices of computers, DVD players, and other electronic equipment. More generally, the price of durable goods, adjusted for overall inflation, has fallen by about two-thirds over the past half-century.

By contrast, consider a typical service, such as a haircut. It still takes a barber with a pair of scissors twenty minutes to cut your hair. There has been no significant productivity growth in haircutting for quite some time. For the barber to be compensated for the value of his time, haircut prices need to keep rising with the level of wages in the economy.

The falling price of manufactured goods, relative to services, explains an apparent paradox. The output of manufactured goods has grown faster than the output of services over the past half-century. Yet manufacturing's share of national income has declined--from 29 percent in 1950 to 15 percent in 2000. Meanwhile, services, including health care, business services, finance, insurance, and real estate, are earning a rising share of the nation's income.

The price changes are crucial to reconciling these facts. Americans produce and consume large quantities of manufactured goods. But because of advances in productivity, the prices we pay for these goods have fallen over time relative to the prices of services. With falling prices, we can consume increasing quantities of manufactured goods, even as we devote an increasing share of our incomes to services.

Faster productivity growth in manufacturing has also affected the labor market. Productivity growth allows manufacturing firms to produce more goods without more workers. Just as we Americans are devoting a shrinking share of our income to manufactured goods, a smaller share of American workers are needed to produce those goods. This phenomenon has been occurring for decades. The proportion of workers employed in manufacturing declined from a recorded peak of 32 percent in the early 1940s to just below 13 percent in 2000.

Some of this apparent job loss is really job reclassification. A lawyer or accountant who used to be in the legal or finance department of a manufacturing firm may now be hired as a consultant. Such workers are counted as service-sector employees rather than manufacturing employees. If an accountant moves from Ford to Ford's accounting firm, the statistics record a loss of one manufacturing job and a gain of one service job.

Nonetheless, even after taking into account these data issues, the relative decline in manufacturing employment is real, as is the decline in the manufacturing share of national income. These trends are the inescapable consequences of the rapid productivity growth in that sector.

In some ways, the long-term trends that we have recently seen in manufacturing mirror what we saw in agriculture a couple of generations ago. A hundred years ago, about 40 percent of Americans were farmers. Today, farm workers make up less than two percent of the labor force. This transition was made possible by tremendous advances in farm productivity. The United States still produces more than enough to feed our citizens. Indeed, farm products are a major export of the United States. But we produce this output with fewer and fewer workers.

To be sure, the transition of workers from farming to other sectors of the economy was difficult, as many farming families can tell you. But the transition away from farming to other industries has been a key element of economic growth and prosperity. Similarly, the productivity growth and the resulting employment declines in manufacturing have been difficult for many families. Yet this dynamic reallocation of workers toward industries where they are more valuable is at the heart of why free-market economies prosper.

An often-voiced concern about the shift from manufacturing to services jobs is that this shift will lower wages – for example, auto workers forced to become hamburger flippers. There is no doubt that many displaced manufacturing workers find themselves in lower paying jobs. The human capital they have accumulated over many years is often not readily transferable to expanding industries.

Yet, as we recognize the hardship faced by displaced workers, we should not make the mistake of concluding that service jobs are bad jobs. The services industries with the highest job growth since 1950 paid as well as, or better than, the average private-sector job in 2000. Meanwhile, most of the manufacturing industries with the highest job losses paid less than average. There is every reason to believe that, even as more Americans work in service industries, the overall level of real wages will continue to rise.

Before taking my current job at the Council of Economic Advisers, I taught for 18 years at Harvard University. Like cutting hair, teaching is a service industry with relatively low productivity growth. The best practices in education have not changed radically since Socrates. As a result, employment in teaching, like employment among barbers, has remained strong, and will likely continue to remain strong in the decades to come.

Many people are surprised to hear that higher education in the United States is an export industry. Students from abroad come to study here because we have the best university system in the world. Last year, the United States ran a trade surplus of about $10 billion in higher education. And that figure includes only the direct payments to colleges and universities by foreign students, and not the many other U.S. goods and services these students buy while they are here.

This brings me to my next topic: the role of international trade, and how it has affected manufacturing.

Expansion of Trade

The U.S. economy is far more open today than it was a generation or two ago. Since 1950, international trade as measured by imports or exports has more than doubled as a percentage of GDP. This trend has had a large impact on manufacturing. Domestically produced goods as a percentage of total purchases of goods have fallen from 93 percent in 1970 to 70 percent in 2000.

This aggregate figure, however, masks differences in the patterns of trade across different types of goods. American manufacturers have transferred lower-skilled jobs abroad to economies with abundant and cheap unskilled labor. At the same time, the American manufacturing workforce has taken on higher-skilled jobs. From 1950 to 2000, employment declined the most in sectors with many low-skilled jobs, such as leather goods, tobacco products, textiles, and apparel. Employment grew the most in sectors that employ high-skilled workers, such as electronic equipment, transportation equipment, instruments, and plastics.

Like productivity growth, trade is not something that we should lament. Some of the arguments made about this topic overlook the most important points. Opponents of free trade point to jobs lost at firms that compete with imports, while defenders of free trade point to the jobs created at firms that export. In reality, both job creation and job destruction are part of the process by which countries gain from trade. Free trade encourages each country to specialize in what it does best. It thereby raises national incomes both at home and abroad.

For these reasons, the Administration remains a strong proponent of free trade. In the short run, there can be losers as well as winners from international trade. But it is better to retrain workers who are displaced by imports than to keep workers producing goods that can be bought more cheaply abroad.

The movement toward freer world trade, like rapid productivity growth in manufacturing, has benefited the economy as a whole. These two trends are mostly inexorable and generally desirable, even though they can cause dislocation for some workers and hardship for some communities.

But they do raise the question: what can or should be done to help manufacturing?

The Way to Help Manufacturing

The answer to this question is simple. The best way to help the manufacturing sector is to boost the growth of the overall economy. The President's policies are doing just that.

They are putting the economy on a better foundation for the future by giving businesses greater incentive to invest. Recent tax changes have included lower taxes on dividends and capital gains; expensing for small businesses; elimination of the estate tax; and lower individual tax rates. Lower individual tax rates help sole proprietorships, partnerships, and S corporations.

These initiatives help manufacturing firms directly by lowering their cost of capital. They also help manufacturing firms indirectly, as a lower cost of capital throughout the economy increases the demand for investment goods that are produced in the manufacturing sector.

The key, though, is that the whole economy will gain as these initiatives spur investment. The results are already being felt. In the third quarter, real business investment grew at a 14 percent annual rate. Higher investment today means that tomorrow's workers will have more capital to work with, making them more productive and allowing them to earn higher wages.

Although these tax changes are an important step toward greater prosperity, the Administration's job is not done. The President has outlined a six-point plan to boost long-term growth. This includes making health care more affordable; reducing the burden of frivolous lawsuits; ensuring a reliable energy supply; streamlining regulations; opening new markets abroad for American products; and making the tax cuts permanent.

These initiatives will help workers and firms in the manufacturing sector by removing some of the impediments to business expansion. They will also promote growth throughout the economy. In the end, it is economic growth that leads to rising living standards for American families.

Thank you.