SPEECHES

A View of U.S. Manufacturing

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Key Points

- Although the economy may have lost some momentum at the start of the year, Lockhart expects a **sustained moderate pace of expansion** and **gradually declining unemployment**. He is also forecasting that the composite of **inflation measures** will level off around a rate **consistent with the Federal Reserve's price stability mandate**.
- Lockhart believes that there is still a halting and fragile quality to the economy. He thinks that the process of restoration of full economic strength with higher employment continues to require support. With longer-term inflation expectations remaining stable, he believes the **current monetary policy is appropriate**.
- In Lockhart's view, the **manufacturing sector** is playing an important role in the current economic recovery. Over the past few decades, manufacturing production has maintained its share of the overall economy, while manufacturing employment has fallen and productivity has increased. Lockhart believes that the future of U.S. manufacturing depends on its ability to change and reinvent itself in response to global competitive pressures.

It's a pleasure to be back in Knoxville and East Tennessee. I'd like to acknowledge with thanks Matt Murray, first for the invitation, and also for his work and that of his colleagues at the University of Tennessee's Center for Business and Economic Research. We have found the center's work to be essential to our understanding of Tennessee's economic performance.

Lee Jones, our regional executive in Nashville, and I also want to acknowledge the service of Jenny Banner, CEO of Schaad Companies, on our Nashville board of directors. Also, Billy Carroll, CEO of SmartBank in Pigeon Forge, has just joined this board. Jenny and Billy follow Debra London, formerly CEO of Mercy Health Partners, representing Knoxville and East Tennessee in our preparation for policy deliberations in Washington.

Each of these executives puts (or has put) in substantial time to give the Federal Reserve intelligence on the real economy in real time. That is to say, they help us understand what business people, labor representatives, and consumers are actually experiencing at a point in time as close to the meeting of the Federal Open Market Committee (FOMC) as possible. This ground-level information and insight supplements the macroeconomic data we pore over constantly to gauge how the economy is doing.

Here is what I plan to do today: I will take a few minutes to give you my up-to-the-minute take on the state of the national economy. I will include my sense of the near and medium outlook. I would then like to take a deep dive, as they say, into a vital element of the country's economic fortunes that I know is important to East Tennessee. That is the manufacturing sector. I will close with comments on inflation.

It's important that I state up front that what you'll hear today are my individual views. They may not be shared by my colleagues on the FOMC or in the Federal Reserve System.

State of the economy and outlook

The economy is now in the eighth quarter of expansion. Private demand grew at a very strong pace toward the end of last year. The incoming data suggest that the economy continued to expand in the first quarter, but at a slower pace than was expected based on the strength in the fourth quarter.

The economy has some things helping it grow and some things holding it back and preventing more rapid improvement. Let me catalog these factors for you. Positive forces include 1) growing consumer activity, 2) sustained strong business investment in equipment and software, 3) pretty strong exports, and 4) rising availability and use of credit by businesses and consumers (particularly for purchases of durable goods such as autos).

Restraining forces include 1) a weak housing sector affecting both construction activity and consumer confidence, 2) rising gasoline and energy prices with continuing concern about the course of events in the Middle East and North Africa, and 3) a clutch of other concerns and uncertainties such as the path of inflation, the still-high level of unemployment, the resolution of fiscal politics in Washington, and the impact of fiscal adjustment at all government levels. Among manufacturers, there is concern about supply chain disruption resulting from the events in Japan.

The recent housing market data have been particularly disappointing, and this information weighs on the consumer psyche. Consumer confidence and spending have been weaker than many were expecting. On the positive side, the labor market has improved in recent months, and the industrial activity data remain very strong.

Although the economy may have lost some momentum at the start of the year, and notwithstanding the factors exerting a drag on growth, I still expect a continuing moderate pace of expansion. This moderate growth will gradually bring down the level of unemployment. I am also forecasting that the composite of inflation measures will level off around a rate consistent with the Fed's price stability mandate. I will come back to this point later on in my remarks.

The U.S. manufacturing sector

The recovery is proceeding in part because of a relatively strong rebound in manufacturing production and employment from the depth of the recession. In 2010, both production and employment in manufacturing industries outpaced growth in the rest of the economy. Strong foreign demand for U.S.-made goods boosted manufacturing exports, which last year made the largest contribution to gross domestic product (GDP) growth since the Second World War.

The latest data show that the manufacturing sector has sustained the strong production gains recorded in 2010. Manufacturing output expanded at an annualized rate of approximately 9 percent in January and February. The manufacturing purchasing managers index (a timely and important indicator) remained at strong levels through March. This index encompasses information on production, factory orders, shipments, and inventory data. The rebound of this index in this recovery has been the strongest since the rebound following the deep recession of the early 1980s.

So now let me walk you through a discussion of the status of and outlook for the manufacturing sector. I will cover the following topics:

A definition of manufacturing—what industries are included in measures of production, for instance.

The current profile of manufacturing in America. Here I will comment on the evolution of the sector over recent decades.

Manufacturing as a source of employment.

And, finally, how manufacturing costs factor into inflation outcomes in the greater economy.

Manufacturing sector defined

For level-setting purposes, I'll define what manufacturing encompasses in the U.S. economy. The sector encompasses a great number of industries and activities, from raw steel production to motor vehicle assembly to water bottling and oyster shucking. Yes, even light processing of products of nature like water and oysters is considered manufacturing. The Department of Commerce has 473 classifications under manufacturing.

The manufacturing sector includes establishments such as factories, plants, and mills. Think of establishments as individual sites where manufacturing activity occurs. A company may have multiple sites. There are approximately 340,000 manufacturing establishments in the United States. These establishments produce goods through mechanical, physical, or chemical transformation of various materials, both raw materials and already-manufactured goods. These are transformed into both semi-finished and finished goods.

A number of industries—a good example is the auto industry—employ the supply-chain model, whereby lead companies do final assembly as well as product design, brand management, and distribution. Feeding the assembly line are tiers of suppliers who manufacture components. Manufacturers of components, in turn, rely on their producers and suppliers of raw materials.

Profile of U.S. manufacturing

Manufacturing output represents about 11 percent of the U.S. economy in real GDP terms. It may surprise you that this percentage has been relatively constant for several decades.

A lot has been written about the growing demand for Chinese-made goods, and China's manufacturing sector is expanding rapidly. Despite China's rapid growth, the United States remains the world's largest manufacturer. According to U.N. data, the United States accounts for one-fifth of global manufacturing output in real terms. That share has held largely constant for the past 20 years.

The United States' high share of global manufacturing output reflects to a significant extent the size of the U.S. economy and domestic demand. Although U.S. exports have grown rapidly, the United States is not the world's largest goods exporter. China and Germany export more manufactured goods than the United States.

In the current recovery, manufacturing production has grown faster than total GDP. But while GDP has already reached prerecession levels, manufacturing output is still about 10 percent lower than three years ago because of its outsized decline during the recession.

Performance within the manufacturing sector has varied widely across industries during the recession and afterwards. Some industries, such as apparel, were in secular decline for many years. Domestic apparel manufacturing was hit hard by the recession and has benefited little from the recovery. Other industries have experienced cyclical swings. Metals production, for example, contracted and then expanded largely in sync with the economy. And a few industries, notably the computer and electronic products industry, rose strongly for many years and slowed only briefly during the recession. Computer and electronic products output is already 20 percent higher than before the recession.

Manufacturing as source of employment

Coming back to the long view, while manufacturing output through the years maintained its share of total GDP, manufacturing's share of jobs has steadily declined. In the 1950s, almost one in three payroll jobs was in manufacturing. Today that number is less than one in 10.

In terms of absolute employment levels, the number of manufacturing jobs fell by almost five million over the last decade and currently stands at around 11.6 million after remaining relatively stable during the 1980s and 1990s. In contrast, manufacturing output over this period has grown at about the same pace as the overall economy. Obviously, increasing production combined with stable or falling employment is only possible if productivity is rising.

Output per worker has increased faster on average in manufacturing than in the overall economy. In many cases, productivity gains in manufacturing have been the result of automation and robotization. In other cases, productivity gains have been realized by reconfiguring production processes, including the offshoring of more labor-intensive, early-stage component production to locations where labor is cheaper.

Higher productivity *has* translated into higher wages. Although employment in the manufacturing sector is much lower than 20 years ago, manufacturing wages remain higher than average wages and have been growing faster. Currently, the average weekly wage in the manufacturing sector is nearly $200 dollars higher than the average for all private industries—double the premium of 20 years earlier. This increased wage premium reflects the changed mix of jobs and relatively higher skill requirements in the manufacturing sector today.

I want to summarize manufacturing in very basic terms: its output level is up; output share is steady; employment is down; productivity is up and, therefore, wages are up. That's the manufacturing story in a few words.

I am aware there is a lot of angst about the manufacturing sector. In part this is driven by the fact that the sector is no longer the generator of jobs it once was. Realistically, the future of the manufacturing sector depends on its ability to change and reinvent itself in response to global competitive pressures. So far, the sector has done this pretty successfully. In my view, to paraphrase Mark Twain, reports of the demise of U.S. manufacturing have been greatly exaggerated.

Inflation picture and monetary policy

Now I'd like to come back to the subject of inflation, which is mostly not a story connected to manufacturing. As I've said before, my expectation is that commodity price increases that are now translating into accelerating headline inflation will be transitory. In support of this claim, I'll make three points.

First, these increases have been driven by global pressures in markets for food commodities, energy, and other commodities. These pressures are largely the result of supply-and-demand factors, some of which are one-off in nature.

Second, inflation indices are made up of a wide spectrum of goods and services that don't uniformly have these commodities as inputs. Roughly two-thirds of consumer spending is on services, which are not materials-intensive.

And, third, to the extent that some goods and services have these commodity inputs, the pass-through to ultimate consumer prices is limited.

Historically, prices for industrial commodities have tended to exert a relatively small effect on most consumer prices. Even when commodity prices rise at double-digit rates, prices of most intermediate and final goods usually increase considerably less. In the short term, producers tend to absorb some of the cost increases because of competitive pressures. Over time, in the face of higher input costs, manufacturers also shift to lower-cost production methods in order to maintain price competitiveness. In addition, for most goods, materials costs are small relative to other costs.

Looking ahead, this is not to say there will be no pass-through effect on inflation. The point is the effect is likely to be muted.

It is, of course, the Federal Reserve's responsibility to ensure that temporary ups and downs in the rate of headline consumer inflation do not turn into a persistent inflationary trend. In my view, the objective is growth in overall consumer prices at an annual rate of about 2 percent. And I think the relevant period for judging success is a medium-term period of three or four years.

A key factor influencing price stability is the inflation expectations of the public and investors. My colleagues and I are watching various measures of long-term inflation expectations for signs that public sentiment about longer-term inflation trends is shifting. At the moment, with longer-term inflation expectations remaining stable—and predicting that commodity price growth will stabilize—my view is that current monetary policy is appropriate.

My view of the future permits a degree of patience as regards monetary policy. There is still a halting and fragile quality to the economy. I think the process of restoration of full economic strength with higher employment continues to require support. That said, planning for an eventual change of course is completely appropriate as long as public discussion about planning deliberations and the plan itself don't create premature expectations of tightening.

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