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Growth: Why the Stats Are Misleading

The BLS data miss crucial import-price shifts. When missing info is factored in, the U.S. economy over the past decade looks worse than we thought

By Michael Mandel

1.7%.

That's the annual reported growth of real gross domestic product per full-time worker from 1998 to 2007, according to government figures. "The amount that U.S. workers produce has grown at remarkable rates in recent years," gushed the 2007 *Economic Report of the President*. These productivity gains are usually held up as proof that the U.S. innovation machine has continued to thrive despite all sorts of obstacles.

But unfortunately, productivity growth may be overstated for two reasons. First, the economy was lifted by two financial bubbles in a row—the stock market bubble followed by the credit bubble—leading to excess growth of finance and real estate. "The financial sector contributed substantially to the surge in productivity growth," says Martin Baily, a Brookings Institution productivity expert. "Some of the financial innovation has turned out not to generate real benefits."

Second, new research by Emi Nakamura and Jón Steinsson of Columbia University suggests pervasive problems with the government's import-price statistics. One example: Figures from the Bureau of Labor Statistics seem to show that the reported price of imported furniture rose by a total of 9% from 1998 to 2007. But how can the import price of furniture have risen over a stretch when the price paid by consumers fell by 7%? Or take computers. Official stats indicate that the price of computers for consumers fell at an average annual rate of 22% a year from 1998 to 2007, which seems to fit with personal experience. However, the import price index for computers shows a drop of only 8% per year over the same time, which seems unlikely. Similar problems occur for other imported consumer durables, including motor vehicles and parts.

SMALL BUT PERSISTENT ERRORS

Like a slow water leak that eventually erodes the foundation of a house, these apparently arcane import-price problems mean that the real growth of imports has been significantly underestimated for goods such as computers that have rapid model changes. That in turn distorts the productivity and growth stats, making them look a lot better than they really are. Adjusting for the finance bubble and the import-price problems means economywide productivity growth may have been about 1.3% per year rather than the reported 1.7%. Similarly, real growth of gross domestic product falls to roughly 2.3% annually from 2.7%. (The exact size of the downgrade depends on what is assumed about the correct change in import prices.)

That's bad enough, but the real downgrade comes in the manufacturing sector. Official stats seem to show that U.S. manufacturing output grew at a 2.6% annual pace from 1998 to 2007, a strangely positive picture considering how many factory jobs were lost and how much production was shifted overseas. After the adjustments, however, the new growth rate for manufacturing output might be as small as 0.8% a year, and factory productivity growth becomes weaker as well. The conclusion: You can't depend on productivity and output growth to make a case for strong innovation.

Why do these two factors make such a big difference? In the official statistics, the finance, insurance, and real estate

sector grew at a 3.4% annual rate—substantially faster than the 2.7% of the rest of the economy. If we assume that the extra growth is an illusion caused by the two Wall Street bubbles, that knocks about 0.2 percentage points off the growth rate of both real gross domestic product and economywide productivity,

The more interesting issue comes up when we look at import prices, one of the least appreciated of the price statistics the government publishes. The import-price index tracks the change in the price of goods and services coming into the U.S. It seems far less relevant to most people than either the consumer price index or the producer price index (which tracks the price paid by businesses to U.S. suppliers). In fact, many textbooks, including my own, *Economics: The Basics*, don't even mention import prices.

WRONG PRICES SKEW OUTPUT FIGURES

But import prices are a big deal—and to understand why, you have to know a bit about the way that the Bureau of Economic Analysis calculates GDP. The oversimplified picture: Statisticians look at how much is bought by American consumers, companies, and governments, and by foreigner purchasers of U.S. exports. Then they subtract out imports. What's left is U.S. output, also known as domestic value-added, or production.

What's important here is that the government does not actually measure domestic production, for the most part—it measures final sales minus imports (leaving aside inventories for the moment). So when it comes to calculating inflation-adjusted growth for the economy or for manufacturing, having the right import-price changes is absolutely essential. That's especially important these days, when imports have risen to 17% of GDP from 13%.

Unfortunately, the BLS has a tough time tracking import prices when there's a change in the product or a change in where it's made. Such model or sourcing changes happen all the time in model changes, which come along often in industries such as electronics, furniture, computers, and even motor vehicles. So if a particular model of imported flat-screen television has a price change, the BLS will get that—but if that model is replaced by one which is slightly bigger or has extra features or maybe even a different product number, it becomes a lot less likely that the BLS will be able to follow the change in prices. This is a problem for all price statistics, but it's worse for import prices, where the BLS must frequently rely on information reported by an importer who may just be an intermediary rather than the ultimate manufacturer or purchaser of the goods. In contrast, the consumer price index has its own data collectors in the store, so it can more easily follow changes in products.

Why is this a problem? Digging deep into BLS data, economists Nakamura and Steinsson have discovered that many imported goods are much more likely to have price adjustments when there is a product or model change. That makes a lot of sense, says Nakamura, if American buyers have a contract with foreign manufacturers that specifies a price for the length of the contract. It also makes sense for corporate accounting reasons in industries with rapid model changes—why bother changing the import price of a cell phone if you are going to have a new model in three months? In fact, Nakamura and Steinsson found that more than 40% of the imported products tracked by the BLS had no price changes.

WEIRD PHENOMENON

Think about it—companies mainly change import prices when the existing product or model is replaced by a new one, which is precisely when the BLS can't track price changes. "You could end up missing a very high fraction of the price adjustments," says Nakamura.

As a consequence, though consumer prices are being driven down by soaring imports, we have the weird phenomenon that the corresponding import prices in computers, motor vehicles, furniture, and all sorts of consumer durables are not dropping anywhere near as fast. In some cases, such as furniture and motor vehicles and auto parts, the official stats show import prices actually rising across a nine-year stretch. That can't be right.

This is not simply an amusing statistical quirk. If reported import prices don't reflect the actual price drops, then the figure for real import growth—that is, adjusted for inflation—is wrong. In fact, real imports are actually growing quite a

bit faster than the statistics show. And that in turn means U.S. production is actually growing more slowly than the official stats, for the economy as a whole and for manufacturing.

Here's an illustrative example: Suppose we have a $1,000 computer that's assembled in the U.S., which incorporates a $400 microprocessor made overseas. The "value-added" in the U.S. is $600, representing the sales price minus the cost of the imported part. Suppose now the computer maker switches to a new supplier that sells an equivalent microprocessor for only $200. The BLS simply doesn't have the manpower or the budget to track all or even a small number of the tens of thousands of similar substitutions going on each year. So it misses this price drop—and many others. In fact, the import-price index for semiconductors dropped by an average of only 2.8% a year from 1998 to 2007.

Let's take this example a step further. The computer manufacturer, facing tough competition, cuts its price to consumers by $200, or 20%, to reflect the lower cost of parts. That price drop will probably be picked up by the consumer price index, even while the price decline in the imported semiconductor is missed. So the economic data will make it seem as if the computer manufacturer has been able to cut the selling price of its computer even though the reported price of its imported parts has not declined much. Bingo! An apparent increase in productivity—even though nothing has changed.

LACKLUSTER FACTORY PERFORMANCE

If this example had been arranged a bit differently, the substitution of a cheaper imported microprocessor would have translated into an apparent increase in output of domestically produced computers, even though nothing else has changed. In fact, this sort of problem probably helps explain why the Bureau of Economic Analysis reports that the domestic production of computers has supposedly risen by a factor of six over the past 10 years, despite the 40% decline in employment in the domestic computer-manufacturing industry. Meanwhile, according to official figures, the real value of imported computers has risen only by a factor of three over the same decade. As the old saying goes, "that does not compute."

The big implication: Manufacturing performance over the past decade, and certainly in the post-2000 era, has been a lot worse than we thought. Yes, consumers reaped the benefits of falling import prices—but that has proved more fragile, over the long run, than an increase in the productive capability of the country. You should think of this as the illusion of productivity growth, which helped sustain the over-optimism of the credit bubble.

Calculating the effect of the import-price problem on manufacturing growth is not a straightforward process. But let's assume import prices for motor vehicles, auto parts, computers, and other consumer durables should have been falling at least as fast as consumer prices (or domestic production, in the case of computers). That means that real growth of imported goods was faster than the numbers show. If we reduce manufacturing growth by a corresponding amount, the average growth rate of manufacturing output from 1998 to 2007 plunges to only 0.8% per year.

Now it's possible that the import-price problem is affecting other industries besides manufacturing. For example, some of the apparent productivity gains in retailing might reflect price cuts in imported goods that are being wrongly counted by statisticians as improvements in domestic operations. In that case the effect on manufacturing would not be quite as large.

"We don't dispute that there are tough measurement challenges in finance, imports, and innovation," says J. Steven Landefeld, director of the Bureau of Economic Analysis, which uses price data from the BLS to help calculate GDP. But he cautions that there may be biases in the statistics which run the other direction, including possible overstatement of medical-care costs.

WORLD PROBLEM?

It must be emphasized that the U.S. has the best system of economic statistics in the world. In fact, there's a good chance that similar problems are happening in other countries, including China. That would lead to global growth

perhaps being significantly lower than we thought—but we have no way to know because other countries don't clearly explain their statistics the way the U.S. does.

That brings us to the final questions: How did we get into this situation, and how can it be fixed? There are two reasons the BLS has had a hard time tracking import prices. The first is conceptual: It's simply difficult to figure out the right way to do it. The BLS is exploring the idea of "input" prices, which would combine import and producer prices in a way that actually reflects the cost to domestic purchases. But that process is still at an early stage. At the same time, economists inside and outside the government are taking the problems a lot more seriously. "The import-price problem is potentially very important," says Susan Houseman, an economist at the W.E. Upjohn Institute who is organizing a November conference that will focus on the problems in U.S. statistics arising from increased globalization.

The second reason is budget, or rather the lack of budget. The U.S. is still ambivalent about being in a global economy. As a result, import-price tracking has not gotten the funding it deserves, given the growing importance of trade. Indeed, substantial budget cuts in both 2006 and 2008 forced the BLS to reduce sharply its coverage of rapidly growing areas of international services (think "offshoring" industries such as call centers and software services). "These are difficult measurement issues," says William Alterman, head of import and export prices at the BLS. "Although we have been able to conserve resources by automating the data-collection process where possible, much of the review and analysis of items is very labor-intensive, requiring economists who specialize in that particular industry or product area."

The new budget proposal from the Obama Administration is relatively generous to the BLS and the other statistical agencies. The reductions in the import-price program remain, but "we got a nice budget bump," says Keith Hall, the commissioner of the BLS. Still, he says, "that's just enough to maintain the quality of the current programs. The economy is constantly changing, and you have to get new measurement tools to keep up."

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