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Don't blame trade for US job losses

A new look at US trade and employment data shows why it's wrong to believe that foreign competition accounts for weak job growth since 2000.

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The US recession officially ended in late 2001, and ever since, despite recent gains, aggregate job creation has been extremely weak—weaker even than during the "jobless recovery" that followed the 1990–91 recession (Exhibit 1, on the next page). Contributing most to the overall number of US jobs lost since 2000 has been the manufacturing sector, which shed 2.85 million of them from 2000 to 2003, notwithstanding the relatively mild nature of the recent downturn in the economy as a whole.

Many people in the United States have looked at the enormous US trade deficit and concluded that a flood of imported goods from China and the offshoring of services to India are to blame for the loss of US jobs. CNN's Lou Dobbs has called the problem "a clear call to our business and political leaders that our trade policies simply are not working."[1] The issue isn't the concern solely of US policy makers: the same fears about trade are rampant throughout Europe and Japan, while protectionist sentiment is rising around the world.

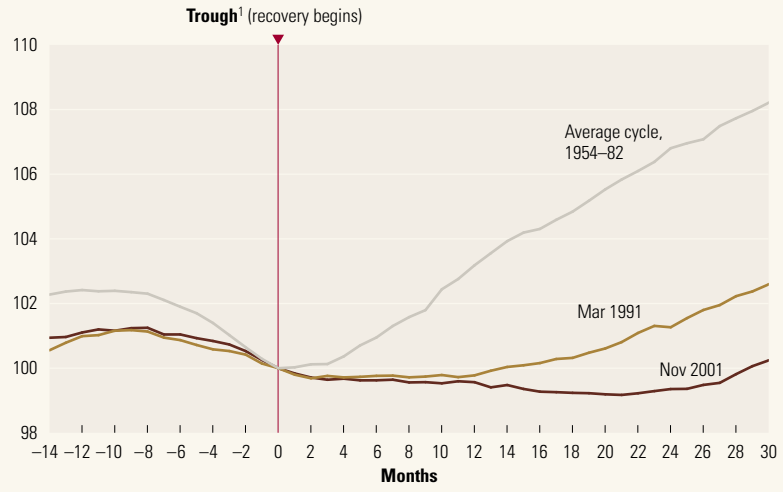
But trade, particularly rising imports of goods and services, didn't destroy the vast majority of the jobs lost in the United States since 2000. We analyzed detailed trade and industry data to estimate the extent of job dislocation due to offshoring in the manufacturing and service sectors from 2000 to 2003. This work was the first complete analysis of how the

[1] Lou Dobbs, "A home advantage for US corporations," CNN, August 27, 2004.

EXHIBIT 1

Weaker than before

Total US nonfarm payroll employment associated with selected business cycles; index: trough = 100[1]



[1]Troughs identified by business-cycle-dating committee of National Bureau of Economic Research (United States).
Source: Employment survey statistics, July 2004, US Bureau of Labor Statistics

economic downturn, imports, exports, and global competition interact—directly and indirectly—to affect employment.[2]

Our research shows that, in fact, only about 314,000 jobs (11 percent of the manufacturing jobs lost) were lost as a result of trade and that falling exports, not rising imports, were responsible. Service sector offshoring destroyed even fewer jobs. These figures are tiny relative to the millions of positions lost and created every year in the United States by normal market forces.

The real causes of job losses were weak domestic demand, rapid productivity growth, and the dollar's strength, which dampened US exports. It is vital that policy makers understand the forces at work, for otherwise there will be a temptation to apply quick fixes, such as protectionism, that won't restore employment, because they do not address the underlying problems. The real solutions—stimulating domestic demand, cutting the budget deficit, and pushing countries with artificially cheap currencies to let them appreciate against the dollar—are harder to implement but more likely to boost employment.

[2]For the full details of our analysis, see Martin Neil Baily and Robert Z. Lawrence, *What Happened to the Great US Job Machine? The Role of Trade and Offshoring*, a Brookings Paper on Economic Activity to be published in April 2005.

The decline of manufacturing jobs

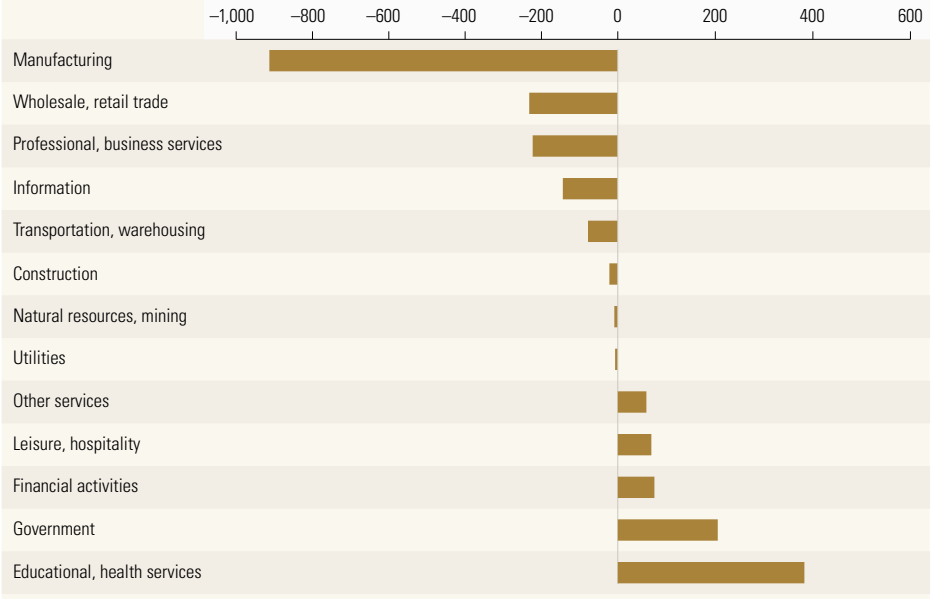
Manufacturing's share of total US employment has been falling for at least half a century—a trend that is typical not only of developed economies but also of many developing ones. In the 1990s, manufacturing employment was fairly stable. From 2000 to 2003, however, payroll employment in manufacturing fell by 16.2 percent, the largest decline since the end of World War II[3] and steeper than the declines experienced by other sectors (Exhibit 2).

While the job losses were concentrated among producers of capital goods and apparel, every major manufacturing sector saw payrolls fall. The bursting of the high-tech bubble resulted in the loss of half a million jobs in computer and electronics production. Other large declines occurred in machinery, fabricated metal products, and textiles.

EXHIBIT 2

Tough times for US manufacturers

US employment gains and losses by sector, 2000–03, thousands of jobs per year



Source: Employment survey statistics, July 2004, US Bureau of Labor Statistics

[3] Prior to 2000, the largest decline, from 1979 to 1983, was to 17 million, from 19.4 million—about 12 percent.

For many observers, trade was the obvious culprit. Since 1992 the United States has run an increasingly large trade deficit, which reached $403 billion in 2003. The size of this deficit and its pervasiveness across economic sectors make it tempting to believe that trade played a major role in the manufacturing recession. What these observers have missed is the subtle relationship among productivity growth, domestic demand, exports, and imports. It is this interplay that leads us to the counterintuitive conclusion that the influence of trade has been minor.

The role of trade

During the late 1990s, trade wasn't a significant cause of job losses, because the United States enjoyed full employment. A shortage of labor, not unemployment, was the problem of the day. The trade deficit in part reflected the fact that the country was producing less than it was consuming.

After 2000, as the economy fell into recession, US exports fell. We estimate that more than 3.4 million manufacturing workers were producing goods for export in 2000; by 2003, this number had fallen below 2.7 million. All told, the export slump destroyed 742,000 US manufacturing jobs.

On the import side, though, the picture was very different. It isn't true that manufactured goods flooded into the United States after 2000. In fact, growth in manufactured imports was quite sluggish from 2000 to 2003. And as we will explain, this weakness in imports actually boosted manufacturing employment in 2003 by some 428,000 jobs.

Overall, then, trade accounted for a net loss of no more than 314,000 jobs (a reduction of 742,000 because of weak exports and an increase of 428,000 owing to weak imports), representing only 11 percent of the total manufacturing job loss of 2.85 million. The other 2.54 million jobs disappeared because of the economy's cyclical downturn, which dampened domestic demand for manufactured goods.

The effect of productivity growth

How did imports boost US employment from 2000 to 2003? The answer lies in the rapid growth of productivity in the United States. To understand how this dynamic played out, we will first explore the more intuitive link between productivity and the jobs generated by domestic demand and by exports and then turn to the relationship between productivity

and imports. Some economic mechanisms can allow productivity increases to boost output and employment—for example, by making companies and industries more competitive. But from a purely arithmetical standpoint, if productivity (output per employee) is rising, output must increase at least as fast to keep employment from falling. After 2000, domestic US demand grew much less than productivity, so companies needed fewer workers to fill their domestic orders. It was a similar story with exports. They fell sharply in 2001, declined again in 2002, and rose only slightly in 2003. With rising productivity and reduced orders, exporters could meet demand using far fewer employees.

In the case of imports, the impact of productivity is actually reversed because imports displace US jobs rather than create them. The higher the productivity of US industries that compete with imports, the smaller the number of jobs displaced by a given volume of imports. We estimated the number by figuring out how many US workers would have been employed had the same products been made in the United States. When we examined statistics on the productivity of industries that compete with imports, we found that it increased so rapidly from 2000 to 2003 that the number of jobs displaced by imports actually declined.[4]

From 2000 to 2003, the number of jobs displaced by imports to the United States actually ***declined***

Although it might seem surprising that net trade played only a small role in the loss of manufacturing jobs after 2000, it actually isn't. Economists often say that international trade acts as an automatic stabilizer in an economy. During a downturn, consumption and investment fall, which mostly affects domestic production and employment; imports, however, are dampened too, and this softens the impact on the domestic economy. International trade might actually have had a positive effect on US employment over this period if not for the fact that US exports were so weak.

Why did exports fall?

Trade's small role in the loss of manufacturing jobs from 2000 to 2003 is a powerful rebuttal to critics of free trade, but that is not the end of our inquiry. Knowing why exports fell is important, since this was the reason for all the job losses associated with trade—albeit only 28 percent of the total decline in manufacturing employment.

[4] US manufactured imports rose much more slowly than productivity over these three years. Hence fewer US jobs were displaced by imports in 2003 than in 2000.

Dogs that don't bark

The global growth recession after 2000 and the outright recession in leading markets such as Continental Europe would appear to be the obvious candidates to explain declining US exports. If a slowdown in the global economy were matched by a slowdown in global trade, US exports would weaken even if the United States maintained its share of that trade. To test this hypothesis, consider what actually happened.

According to UN commodity trade data, US exports fell by $46.2 billion, or about 7.2 percent, from 2000 to 2003. Meanwhile, non-US world trade in merchandise *grew* by 23.5 percent. If the ratio between US and non-US trade had remained constant, US exports too would have risen by the same amount. But they didn't, and the question is, why not?

One possible explanation is that US exports might have been concentrated in commodities for which demand was growing relatively slowly. US exports of high-tech goods rose rapidly in the 1990s, for example, but then dropped sharply when the technology sector slumped. Our research shows, however, that this "commodity" effect was quite small—in fact, it helped the United States slightly, boosting its exports by 0.6 percent (about $4 billion). Yes, the United States sells products (such as high-tech gear) that didn't keep pace with the overall rise in world trade. But it also sells goods, such as aircraft (including military aircraft and helicopters), auto parts, automobiles, and medical products, in which world trade grew rapidly. Overall, this commodity effect was nearly a wash.

Another possibility is that demand was weak in countries to which the United States exports—perhaps it was competing in the "wrong" markets. It is indeed true that demand in important US export markets, such as Brazil, Canada, and Europe, was soft. Yet trade with China and Mexico was positive for US exporters. On balance, US export markets grew somewhat more slowly than did total world trade, so this "country" effect does explain a little of the weakness of US exports, but only a little.

Competitiveness and the dollar

Or perhaps US companies simply became less competitive compared with producers in other countries. Loss of competitiveness is a vague term that can reflect a number of factors, including the entry of new competitors such as China and India, an improvement in the quality of foreign goods, or a change in the sourcing patterns of US multinationals away from US goods. Such structural factors, though, have been at work for some time. They therefore seem unlikely to be the main reasons for the rather abrupt

shift from rapid export growth in the 1990s to falling exports in 2001 and 2002.

Much the most important reason US exports became less competitive was the high value of the dollar, which rose from the late 1990s through early 2002, boosted by private capital inflows in the 1990s. Even though the US economy later weakened, these inflows continued after 2000, since foreign investors still hoped to find higher returns in the United States than elsewhere. As time went on, the dollar was propped up more by capital inflows from foreign governments purchasing US Treasuries and other dollar assets. (Prime examples of this trend were Asian countries with currencies pegged to the dollar and countries that bought dollars in an attempt to limit the appreciation of their own currencies as the dollar started to weaken in 2002.) The dollar has now fallen sharply against the euro, but the damage has been done. Experience shows that there is a long lag (about three years) before changes in exchange rates have their full effect on export volumes.

We estimate that if the dollar hadn't increased in value after 2000, exports would have risen by $29.3 billion over the next three years rather than falling by $50.7 billion. Productivity was growing so fast that this export growth wouldn't have halted the loss of manufacturing jobs, but the number lost as a result of the country's export performance would have been 447,000 instead of the 742,000 actually recorded. After adding back the 428,000 jobs related to changes in imports, trade's impact on manufacturing employment would have been practically zero.

In short, the appreciation of the dollar accounts for most of the erosion in the US share of world markets. It is by far the most compelling explanation for the weakness of US exports and, hence, for the number of manufacturing jobs lost to trade.

What role did offshoring play?

The development of India's business-process-outsourcing sector, which is heavily geared toward exports to the United States, has added a new layer of concern about US jobs, particularly good ones. With large numbers of college-educated, English-speaking, highly motivated workers in India, even

white-collar workers in the United States feel threatened.[5] But the figures so far suggest that the number of jobs transferred to India is tiny relative to employment in the US service sector. One powerful indicator of this reality is the relative health of employment in computer services during recent years, given the weakness of domestic US demand for technology services.

A drop in the bucket

Adding software and business-process jobs together, about 274,000 jobs,[6] at most, moved to India from 2000 to 2003—equivalent to an annual average change of about 91,500 positions. Although the costs were substantial for the displaced employees, a job shift of this size is small compared with the 2.1 million service jobs created every year during the 1990s and minor compared even with the net annual job increase of about 327,000 from 2000 to 2003.

Employment in IT and IT-enabled occupations has actually been surprisingly strong in the past few years. A look at employment patterns in the IT occupations that offshoring might have affected (Exhibit 3) reveals that total employment in computer-related service occupations dropped only modestly from 1999 to 2003.[7] Moreover, the job decline after 2000 followed a huge technology boom in the late 1990s, culminating in the surge of employment and investment needed to resolve the Y2K problem. The employment levels reached in 2000 were unsustainable regardless of what happened to US trade in services with India.

Winners and losers

While the overall change was small, important shifts did take place in the mix of employment within computer occupations. The biggest losers were computer programmers and computer support personnel. For the latter group, employment surged from 1999 to 2000, strongly suggesting a Y2K effect; employment in 2003 was still above the 1999 level.

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[5] The literature on the impact of offshoring is extensive. See, for example, Charles L. Schultze, *Offshoring, Import Competition, and the Jobless Recovery*, Brookings Institution Policy Brief Number 136, August 2004 (www.brookings.edu); Lael Brainard and Robert E. Litan, *"Offshoring" Service Jobs: Bane or Boon—and What to Do?* Brookings Institution Policy Brief Number 132, April 2004 (www.brookings.edu); Jagdish Bhagwati, Arvind Panagariya, and T. N. Srinivasan, *The Muddles over Outsourcing*, Washington University at St. Louis Economics Working Paper, International Trade Series, Number 0408004, August 2004 (http://econwpa.wustl.edu); Martin N. Baily and Diana Farrell, *Exploding the Myths about Offshoring*, McKinsey Global Institute, April 2004 (www.mckinsey.com/knowledge/mgi/exploding_myths); and Robert D. Atkinson, *Meeting the Offshoring Challenge*, Progressive Policy Institute, New Economy Policy Brief, July 2004 (www.ppionline.org).

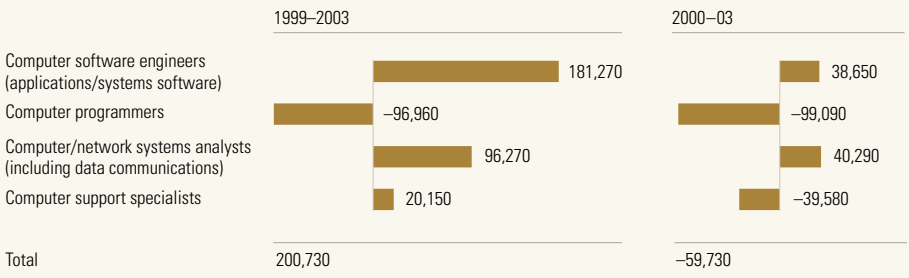
[6] This estimate is an upper bound. Roughly 134,000 of the jobs were in software and 140,000 in other business processes.

[7] Note that this estimate doesn't include production workers in the IT hardware industry. Manufacturing employment in the computer and semiconductor industries fell very sharply after 2000.

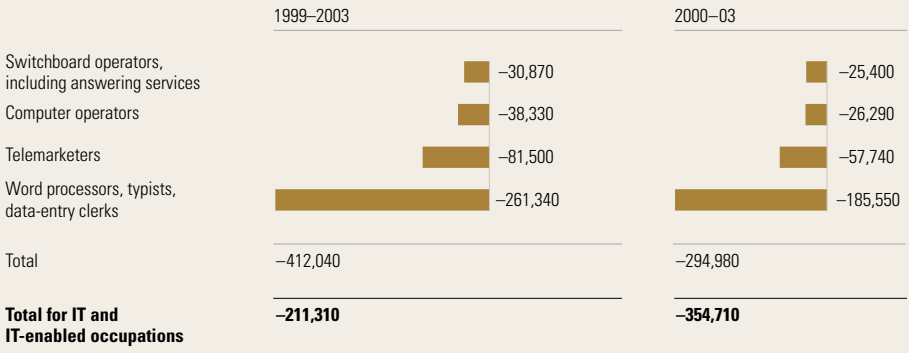
EXHIBIT 3

Small change overall

Change in employment by IT occupation,[1] number of workers



Change in employment for low-wage IT-enabled occupations,[2] number of workers



[1] Excludes database, computer, and network systems administrators as well as computer, information scientists/researchers.
[2] Excludes production workers in IT hardware industry; manufacturing employment in computer, semiconductor industries fell very sharply after 2000.

Source: Occupational employment statistics, US Bureau of Labor

For computer programmers, however, the decline of 99,090 jobs probably was the result of offshoring to India. We estimate that as many as 134,000 software-related jobs were created in India to serve the United States—roughly equivalent to the number of US software sector jobs lost. As trade in services with India became cheaper and easier, the computer-programming sector followed the laws of comparative advantage, with basic programming jobs moving to low-wage countries. At the higher end of the spectrum, though, jobs continued to proliferate in the United States. From 2000 to 2003, the number of US computer software engineers and computer and network systems analysts, who work on higher-end applications and systems, actually increased, thereby offsetting the loss of computer-programming and computer support jobs over the same period.

How to get back on track

Our research focused on understanding the causes of job losses rather than identifying prescriptions to improve the situation. Nevertheless, this work holds a powerful implication for government leaders. Since trade and offshoring weren't the primary reasons for the weak post-2000 US employment performance, they shouldn't be the focus of policies to create or restore jobs. In particular, imports didn't cause the job losses, so there is no case for trade restrictions. Instead, policy makers should attack the real roots of declining employment: weak domestic demand and a dollar-driven decline in exports.

One task should be to stimulate domestic demand, whose weakness helped account for 89 percent of lost manufacturing jobs. Recent expansionary fiscal and monetary policies have been moving the economy in the right direction; now it is a matter of letting them aid the economy's natural recovery. Once it is well established, a sustained effort to reduce the federal budget deficit would help to lower interest rates and reduce the overvaluation of the dollar—and would be good economic policy in any case.

Since the strong dollar was in large part responsible for the falling level of exports and thus for some of the loss of manufacturing jobs, US policy makers should continue to promote exchange rate flexibility on the part of other countries. Asian governments that have been intervening in foreign-exchange markets to prevent their currencies from appreciating against a declining dollar (and therefore from damaging exports to the United States) should be encouraged to let dollar depreciation run its course. The dollar might need to decline further against other currencies, including the euro.

Although stimulating demand and encouraging exchange rate flexibility will address the root causes of US job losses, we recognize that these policies will not restore every lost job or help every displaced worker. The best strategies for dealing with the adverse effects of trade-related job dislocation are trade-adjustment-assistance programs that give workers opportunities

to improve their skills.[8] Such initiatives should have the added benefit of helping to defuse protectionist pressures. Defusing them is critical because protectionism isn't merely the wrong answer to US job losses; it is a response to the wrong question. Q

[8] Lori Kletzer and Robert E. Litan, "A prescription to relieve worker anxiety," Policy Brief 01-02, Institute for International Economics, Washington, DC, February 2001 (www.iie.org).

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