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Offshoring, Import Competition, and the Jobless Recovery

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Until the end of 2003, the United States had been experiencing a "jobless" recovery, with employment stagnating at levels well below those in 2000. A widespread perception has arisen that a major culprit behind the dearth of jobs was the growing practice of U.S. firms to relocate part of their domestic operations to lower-wage countries abroad. "Offshoring" presumably caused a reduction in U.S. output and a corresponding loss of jobs.

In fact, after the 2001 recession, U.S. domestic production rose substantially, but output per worker—productivity—jumped so sharply that instead of rising, employment declined. That is the real cause of the jobless recovery. Had GDP growth been accompanied by a continuation of earlier rates of productivity growth, there would have been some 2 million more private sector jobs than there were at the end of 2003.

When firms send work overseas, those goods or services come back in the form of imports. But a careful look at U.S. import data—especially for service imports, where most offshoring growth occurred—indicates that while the total number of jobs affected by offshoring had increased, that number was still small relative to the millions of jobs affected by the productivity surprise.

WHAT IS OFFSHORING?

There is no official definition of the term "offshoring," but it has come to mean the actions of American firms in relocating some part of their domestic operations to a foreign country, including, for example, automobile firms switching purchases of auto parts from domestic plants to Mexico; computer or software firms transferring some of their programming operations to India; or financial firms relocating major parts of their record-

keeping activities to one of the Caribbean countries.

In some cases firms locate overseas operations in foreign affiliates they own and control. Some fraction of the value of the firm's domestic sales now consists of intermediate goods or services imported from those affiliates. The Department of Commerce's Bureau of Economic Analysis (BEA) includes these intra-firm imports in its compilation of U.S. domestic and international economic accounts.

Overseas relocation need not, and very often does not, involve transactions with foreign subsidiaries. Firms can effectively relocate activities abroad by contracting for the purchase of goods and services from independent foreign firms. Nike, for example, has set up an extensive network of independent foreign producers under contract to produce goods for Nike's distribution channels in the United States. There are American and foreign firms who can act as intermediaries to arrange the production of goods and services abroad to meet the needs of smaller American firms that wish to outsource some part of their operations abroad.

While the advent of cheap, high quality, and virtually instantaneous information and communication facilities has substantially widened the range of services that can be outsourced abroad, the economic characteristics and consequences of these activities are very similar to the long-standing historical process through which falling transportation costs have sharply expanded the range of goods subject to import competition. More generally, the substitution of imports for domestic production and offshoring are simply different forms of the same phenomenon. Increases in this kind of activity large enough to have a significant effect on U.S production and employment should generate corresponding increases in U.S. imports of the relevant types of goods or services.

The immediate effect of an increase in offshoring is a reduction in U.S. employment, either through a rise in worker layoffs or a slowdown in new job creation. Over the longer run, however, the lower prices for consumer and investment goods made possible by the offshoring raise real wages and living standards here at home while consumption and investment spending rise and employment recovers. This Policy Brief deals only with the short run negative effects on jobs.

EMPLOYMENT EFFECTS OF THE PRODUCTIVITY SPEEDUP

By the end of 2003, gross domestic product in the U.S. nonfarm business sector had risen by more than 5 percent over the prior four quarters, and was almost 8 percent above what it had been three years before that at the peak of the boom. Yet the aggregate number of hours that employees worked had fallen by 4.5 percent—3 percent due to lower employment and 1.5 percent due to fewer average hours per week. An (admittedly mechanical) simulation can give some sense of the effect of the

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surge in productivity on the employment numbers. Productivity (output per hour) in the nonfarm business sector rose 2.6 percent a year between the fourth quarters of 1995 and 2000. In the next three years, it rose at a surprisingly strong 4.1 percent rate. If productivity growth over those three years had continued at its earlier pace, the aggregate hours of work needed to produce the fourth quarter 2003 GDP would have been more than 4.5 percent larger than it actually was. Employment in the nonfarm business sector would have been some 2 million persons higher, with the precise amount depending on just how much of the increase in total hours worked came from a recovery in the average length of the work week. The unemployment rate would probably have been somewhere around 5.0 percent.

If the alternative scenario had occurred, with its lower productivity growth and higher employment and worker income, the time-path of GDP itself would have been affected, although the extent and even the direction of the response is not obvious. But the alternative possibilities are irrelevant to the issue here: given the substantial growth of GDP that did occur, how much of the disappointing behavior of employment can be explained by acceleration of productivity as opposed to the growth of offshoring or other factors.

Without any increases in offshoring during the period, domestic production might have grown even faster than it did, with positive effects on employment. Nevertheless, had the nation experienced the millions of extra jobs, the rise in weekly hours, and the increase in wage and salary disbursements that would have occurred had productivity not accelerated, the media would now be paying far less attention to offshoring and low wage imports, and recent political rhetoric would not have so heavily featured the evils of NAFTA, Chinese competition, and offshoring.

The evidence about the dominating role of the recent productivity acceleration in explaining the jobless recovery does not address the size of employment effects on the increases in offshoring and import competition. Other evidence is needed to shed some light on this question.

SURVEY EVIDENCE ON LAYOFFS AND OFFSHORING

The Bureau of Labor Statistics publishes a quarterly tabulation of "extended mass layoffs"—layoffs of fifty or more employees expected to last at least a month. Establishments that have made these layoffs are identified from federal and state unemployment insurance records, and are asked to assign the reason for them and to provide the total number laid off. Extended mass layoffs, for causes other than the ending of "seasonal" jobs, averaged 900,000 a year in 2002-2003. Among the relatively long list of reasons that respondents can assign for layoffs are "import competition" and "relocation overseas." Together, those two reasons accounted for only 4 per-

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These numbers, however, do not capture all of the layoffs and other effects on U.S. employment from changes in overseas outsourcing and imports. They exclude smaller scale layoffs (less than fifty at a time). In some cases import competition can indirectly result in a loss of sales in ways that may not be apparent to or identified by the losing firm. Moreover, the estimates cannot pick up any effects on employment that show up, not in layoffs, but in a reduction of domestic hiring by offshoring firms that would otherwise have been adding to their workforce. Where outsourcing takes the form of contracting (directly or through intermediaries) with independent foreign suppliers, rather than transferring operations to majority-owned foreign affiliates, some respondents may not report this as a "relocation." But even after allowing for all of this, the data suggest, with respect to layoffs at least, that import competition and relocation play a much more modest role in explaining the jobless recovery than is depicted in much of the media.

INDIRECT EVIDENCE FROM IMPORT DATA

The overall effect. When part of the production of goods or services destined for domestic markets is shifted abroad, the value of the outsourced production returns as imports. If the disappointing employment growth of the past several years came about because America's production needs were being met to an increasing degree by production from foreign rather than American workers, as Americans increased the share of consumer and capital goods they bought from abroad, or as domestic firms expanded the share of their operations located abroad, this should show up as a rise in the inflation-adjusted value of imports relative to GDP. During the 1990s the import share rose steadily, but apart from some short-term fluctuations the share leveled off thereafter. It is difficult from this data to see how changes in the combination of import substitution and offshoring could have played a major role in explaining America's job performance in recent years.

The estimates on imports of goods come from relatively comprehensive U.S. customs data. Conceivably, the surveys of business firms used by the Department of Commerce to collect data on service imports may be missing some of the increase attributable to offshoring. I discuss later in this Policy Brief the issue of possible errors in the estimates of service imports. But the absolute size of any such errors in the import data cannot realistically be anywhere near large enough to alter the earlier conclusion that the speedup in productivity growth was by far the dominant factor behind the disappointing job growth.

OFFSHORING OF SERVICES

What can we say about the relative magnitude of the offshoring of services—software writers and computer technical support in India, clerical and record-keeping operations in the Caribbean, and call centers in a number of coun-

tries? Anecdotes abound, but was the growth of these operations sufficient to explain any significant part of the jobs problem? There is no fixed line of demarcation between offshoring activities and simple purchases of imported goods and services abroad. But the U.S. data on imports of services suggests that the growth of those imports was not large enough to have made a major, economy-wide impact in swelling layoffs or inhibiting job growth.

Up-to-date quarterly estimates are available for imports of what are called "other services," that is, all services excluding travel, transportation, and royalty fees. Business, professional, and technical services (BPT for short), many of which have been subject to offshoring activities, account for a little more than half of "other private services," with the rest consisting of educational, financial, insurance, and telecommunication services that are not themselves likely to be heavily imported as a result of overseas relocations. Within the broad "other private services" category, the United States has long been running a substantial and growing export surplus. Between 1997 and 2003 imports did grow strongly, but in absolute terms, exports grew even faster, providing job opportunities that offset at least some of the job losses attributable to the rise in imports. Because the activities that are outsourced abroad are likely to use less skilled and lower-wage labor, it is possible that the job losses from offshoring exceeded the job gains associated with the growth in exports, but the magnitude of the net loss could not have been very large.

To make estimates about the level and growth of offshoring, it would be most useful to have import data classified at some greater level of detail, for example BPT services, and within that category specific information about such items as services related to computers, software, and data processing. Unfortunately, 2002 is the latest year for which complete data are available at that level of detail. BPT imports grew strongly in the five years preceding 2002, especially in the earlier part of the period, but here also the United States continued to run a large and gradually expanding export surplus. Between 1997 and 2002, imports of BPT services remained a virtually constant fraction of the larger category of "other private service" imports. If one assumes that this stability has continued, it is possible to get a reasonably good fix on the growth in BPT imports through the end of 2003. That data in turn can be used to make a rough calculation of the impact of the potential size of jobs lost to the offshoring of BPT services.

To give the offshoring hypothesis the benefit of the doubt, ignore any employment gains associated with growing exports of BPT services, and assume that all of the rise in imports in such services relative to GDP since the last quarter of 2000 was associated with growth in outsourcing activities involving a loss of domestic jobs among the firms involved. To make a crude estimate of the possible substitution of foreign workers for U.S. workers, further assume that the number of dis-

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placed U.S. workers equaled the number of foreign workers hired; that the relocated operations typically involved lower skilled jobs with about two-thirds to four-fifths of the value produced per worker than the average for the U.S. "business services" industry; that the compensation per worker paid in the overseas locations ranged between one-fourth and one-sixth of U.S. compensation; and that all other costs of the offshore services were close to what they would be in the United States. Given these alternative assumptions, the increased imports between the end of 2000 and the end of 2003 imply an aggregate job loss from outsourcing of BPT services alone totaling between 155,000 and 215,000.

These are necessarily very rough estimates, based on some judgmental assumptions. Some Indian estimates, which I discuss later, give the number of Indian employees associated with the relocation of computer and related operations to that country. Depending on what one assumes about worker productivity in the Indian operations, those numbers suggest the possibility of somewhat larger numbers of job losses in the U.S. information technology sector than implied by the estimates for BPT as a whole given above. But even substantially larger numbers would still be small in relation to the size of the U.S. labor market and the magnitude of the annual job creation and destruction that characterizes the dynamic American economy.

A lot of the media attention has been focused on the relocation overseas of programming and other computer-related services. Imports of these services did rise sharply from 1997 through 2000, but the U.S. data show no increase over the next two years. Given the sharp decline in the demand for information technology products after the high-tech bubble burst in 2001, the stability of imports of computer and related services from 2000 to 2002 probably conceals a continued rise in the importance of offshoring. At the same time, the continued high level of American sales abroad allowed the United States to continue running a substantial export surplus of these computer-related services.

In sum, what the U.S. official trade data suggest is that the anecdotal evidence may indeed accurately reflect a substantial relative increase in the employment losses from the relocation of service-type activities abroad during recent years. But the data do not provide any evidence of an increase in offshoring of goods and services anywhere near large enough to have played a substantial role in shaping overall trends in U.S. employment. Moreover, in the broad area of BPT services, where offshoring is most important, the United States has a large export market that continues to expand, providing a growing number of jobs for American workers.

THE OFFICIAL U.S. ESTIMATES

The data on imports and exports of BPT services are principally based on several surveys of business firms conducted by the Bureau of Economic Analysis. Substantial improvements

have been made in the collection system over the last decade and a half. Nevertheless, an inspection of the data for India does raise some questions about the extent to which the data for particular categories of services are really capturing the rise in offshoring. The U.S. data shows a substantial decline in "other service imports" from India between 2000 and 2002, which is hard to square with the abundance of anecdotes and media attention. U.S. data covering unaffiliated trade with India in the more narrow category of BPT services (which is almost surely dominated by computer and related services) shows only $209 million in imports from India in 2002, about the same as in 2000. (Total service imports by U.S. multinationals from their Indian affiliates were not large enough to add much to these figures).

The low $209 million level of non-affiliated BPT and computer related imports in the U.S. data—and the absence of growth between 2000 and 2002—are impossible to reconcile with the anecdotal evidence. More importantly, data from Indian sources show a far higher level and a larger rate of increase in computer-related service exports to the United States than do the U.S. import statistics.

According to Indian data, exports to the United States of computer software and other information technology related services—a subcategory within business services—amounted to $1.1 billion in 1997-98, $3.7 billion in fiscal year 2000/2001, and $6.0 billion in 2002/2003, many times higher than shown in the U.S. import statistics. But these Indian data count as an export the revenue from arrangements whereby Indian firms, using Indian personnel, perform services at the U.S. site of their clients. In the U.S. data, the value of such services performed in this country are generally counted not as imports but as domestic production. Even after correcting for this difference, however, Indian computer and related service imports to the U.S. rose from $1.6 to $3.4 billion between 2000/2001 and 2002/2003, a level and a rate of increase much higher than implied by the U.S. import figures. And based on estimates derived from Indian data, the number of workers employed in producing computer and related services relocated from the United States to India could have increased by roughly 185,000 over the past four years.

It is not necessarily the case that it is the Indian data which are more nearly correct. There may be definitional reasons for some of the differences. And according to the data from Organization for Economic Cooperation and Development, the major industrial countries report imports of services from India that, in the aggregate, are a puzzlingly small fraction of the worldwide exports of services reported by India. But we do not know enough to form a good judgment. For a number of reasons, not least being the national attention paid to the offshoring phenomenon, we ought to have more information about this issue. Funds should be quickly provided to the BEA for a targeted research effort aimed at uncovering the reasons for the appar-

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ent discrepancy among different sources, and recommending any needed improvements in the U.S. data collection system.

Should it should turn out that the official estimates are seriously understating the relevant service imports, the assessment of the employment effects of offshoring made earlier in this Policy Brief and elsewhere, based on evidence from U.S. import data, would have to be significantly raised. But even a large increase in the estimate of the relevant service imports and their employment effects would still be quite small relative to the overall economy, the annual turnover in the American labor market, and the magnitude of the shortfall in job growth that has to be explained. Thus, for example, a large correction in the estimate of imports of BPT services, which are themselves only 0.4 percent of GDP, would imply only a very minor change in the reported acceleration of productivity growth over the last few years and its contribution to the slow recovery in employment until just recently.

The essential conclusion remains that offshoring, and more broadly import competition, while clearly having an important effect on some industries, workers, and communities, were not significant causes of the "jobless recovery."

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