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Temporary Workers Raise Manufacturing Productivity Measure

For years, official government statistics have indicated high productivity gains for manufacturing firms. But new research indicates that such gains, though still far above the average for nonfarm industries, may not be quite so spectacular. In a recent NBER Working Paper, **Marcello Estevao** and **Saul Lach** find that manufacturers in the 1990s have been hiring more and more temporary workers. These workers remain on the payroll of the temp agency, and thus are not counted when manufacturers supply numbers to the government on the size of their work force and hours worked. The result has been a modest exaggeration—about 0.5 percentage points a year, or somewhat less, from 1991 to 1997—in the annual improvements in manufacturing productivity. Instead of annual productivity gains of 3.8 percent in that period, the adjusted figure amounts to 3.3 percent. That compares with 1.3 percent annual productivity gains for all nonfarm industries, a group that includes the manufacturing sector.

In **Measuring Temporary Labor Outsourcing in U.S. Manufacturing** (NBER Working Paper No. 7421), the authors write that the growing use of temp workers by manufacturing—about 890,000 now

of a total above 19 million—partially explains the flatness in the level of manufacturing employment in the 1990s (as recorded by the Bureau of Labor Statistics) despite the substantial increases in output of American manufacturers. Manufacturers added only 550,000 jobs between 1992 and 1997, even though the economy was thriving. In the last 10 years or so, employment in the U.S. “temporary help supply” industry has more than tripled. Looking at a longer period, the number of temps has risen at an

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annual rate of 11 percent a year. Total nonfarm employment—a far larger number than manufacturing employment alone—expanded at only 2 percent per year.

As of 1997, however, temps accounted for only about 2 percent of total nonfarm employment, Estevao and Lach note in **The Evolution of the Demand for Temporary Help Supply Employment in the United States** (NBER Working Paper No. 7427). Temporary help accounted

for 10 percent of the net increase in nonfarm employment between 1991 and 1997, though. In this paper, the authors estimate where these temp workers are employed, making use of input-output data (cross-industry sales and purchases information) and numbers from surveys of contingent workers in 1995 and 1997. They find that the proportion of temp employees in each of eight major American industries, except the public sector, increased from 1977 to 1997. The proportion of

temp workers employed in the public sector (including federal, state, and local administration, and public enterprises) declined from a 40 percent peak in 1982 to almost zero in 1997. By 1997, close to 4 percent of the employees in manufacturing and services were temps; about 75 percent of all temporary employees worked in manufacturing or service sector firms. That compares to 40 percent in 1982.

The surge in demand for tempo-

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rary blue-collar workers by manufacturers is consistent with reductions in the proportion of temporary white-collar and pink-collar (clerical) workers. Further, Estevao and Lach find that more temps now are men. The proportion of males among those working for temp agencies in 1992-7 (38 percent) was more than 10 percentage points higher than in 1977-87. The share of temps working part-time (less than 35 hours of work per week) declined in that same time span, although it remained well above the average for the whole labor force.

On average, the authors find, temps are a bit better educated: the

proportion of temporary workers with at least some college increased from 52.5 percent between 1977 and 1987 to about 55 percent between 1992 and 1997. The authors also find that the rise in the proportion of temp workers in the economy is attributable to a conscious decision by employers to hire more temps, rather than to a shift in employment from temp-light to temp-heavy industries. The hiring of more temps, they write, may enable firms to implement a two-tier wage structure; they may contract with temp agencies that pay less for workers doing similar work to that of regular workers, thereby lowering overall wage

costs. Employers also may get the advantage of temps specializing in specific tasks, or obtain temps who have been better screened or trained than if the firms were to hire these temporary workers directly themselves. The use of temps may facilitate rapid changes, up or down, in the number of employees the firm needs because of shifts in demand. Indeed, Estevao and Lach find a much greater variation in temporary employment in manufacturing—perhaps six to 10 times greater—than in regular, on-payroll workers.

—David R. Francis

Aid to College Students Increases Attendance and Completion

In recent years, Federal spending on financial assistance programs for college students in the form of tax credits, loans, work study, or direct grants-in-aid has expanded rapidly. The object of such subsidies has been to encourage college attendance by lowering its price. Whether or not student financial assistance actually increases college attendance and years of school completed is a question that is still open to debate.

\$3.7 billion a year (1998 dollars) to one out of ten college students. In 1980, the average annual benefit for 18- to 22-year-old full-time college students with a parent who had died, retired, or been disabled was \$5400. At the time, tuition and fees at public universities averaged \$1600, tuition and fees at private four-year colleges averaged \$6100, Pell grants averaged \$1700, and guaranteed student loans averaged \$3800.

In 1988, NLSY participants answered a series of questions indicat-

student benefits increased the share of high school graduates attending college by about 3.6 percentage points. Eligibility for the benefit program increased the number of years of schooling completed by about one year.

Further analysis suggests that this program was a cost-effective use of government funds. Comparing the lifetime earnings of people with 12 versus 13 years of completed schooling, and accounting for wages lost while in college, Dynarski concludes that an additional year of college for a member of this group would generate \$15000 in extra lifetime earnings. This benefit to the individual is more than twice the \$7600 it cost the government to fund the benefit.

Furthermore, Dynarski finds that "a student who has crossed the hurdle of college entry with the assistance of aid is more likely to continue schooling later in life than one who has never attempted college." Thus she concludes that an efficient aid program would provide relatively generous subsidies for the first year of college, unlike the current Pell Grant program and the Stafford loan.

—Linda Gorman

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In **Does Aid Matter? Measuring the Effect of Student Aid on College Attendance and Completion** (NBER Working Paper No. 7422), **Susan Dynarski** uses data from the National Longitudinal Survey of Youth (NLSY) to examine whether eligibility for the Social Security Student Benefit Program, which operated from 1965 to 1982, influenced college attendance and completion rates. At its peak, this program provided grants totaling

ing whether their father had died before they reached the age of 18. Assuming that a student whose father had died was eligible for the Social Security Benefit Program, the paper compares the difference in college completion and attendance rates for students who were high school seniors before and after the program ended in 1982. Students whose fathers were alive are used as a control group.

Dynarski finds that each \$1,000 of

Investor Protection Adds to Company Share Values

Statutory limits on the behavior of those in control of publicly traded companies appears to be good for share prices, according to a recent study by **Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny**. In situations where there are clear and strong legal limits on what is known as “expropriation” of earnings, investors are willing to pay a premium for securities. That means that investor protections, far from having a chilling effect, actually make companies worth a lot more than they would be without such restraints.

In **Investor Protection and Corporate Valuation** (NBER Working Paper No. 7403), the authors use data on 371 large firms located in 27 high income countries. Their basic finding is that “better shareholder protection is associated with higher valuation of corporate assets” and that “poor shareholder protection is penalized with lower valuations.”

In effect, if you are an entrepreneur living in a country that places few barriers between you and your profits, the lack of restraint might be costing you money. The authors note that when investors are keenly aware that the law is not on their side, they’re stingy in regards to share price; that deprives companies of capital and limits “the set of projects that can be financed.”

The authors look at the fact that

when individual “entrepreneurs” or small groups of shareholders control publicly traded companies—as is most often the case—they have the authority to “divert a share of the profits” to themselves and then distribute what’s left as dividends. According to the authors, a key determinant of whether those dividends are tantamount to a few crumbs or a fair slice of the pie is whether there are laws that at least make it difficult for controlling entities to feast on the profits.

While such laws are clearly a plus for minority shareholders and for the

note that their study illuminates previous “findings that capital markets are broader and firms tend to be larger in countries with better investor protection.” They also find that, aside from legal deterrents, the nature of people’s financial stake in a company could give them a sort of self-interest incentive to distribute profits fairly. For example, entrepreneurs who depend on company stock to finance expansion—corporate acquisitions routinely substitute stock for cash—would not want to do something that would damage share price.

“Better shareholder protection is associated with higher valuation of corporate assets and...poor shareholder protection is penalized with lower valuations.”

stability of financial markets, they have other benefits as well. It turns out that when investors feel their rights are secure, they reward companies by paying “more for financial assets such as equity and debt.... They pay more because they recognize that, with better legal protection, more of the firm’s profits would come back to them as interest or dividends as opposed to being expropriated by the entrepreneur who controls the firm,” the authors assert. “By limiting expropriation, the law raises the price that securities fetch in the marketplace.”

This gives companies the capital they need to take advantage of opportunities for expansion. The authors

But while such dynamics might also produce fair treatment for minority shareholders *and* high valuations, the authors say that evidence of this more market-driven benefit is not as compelling as is proof of the positive effect of investor protection laws. Overall, the authors believe that demonstrating a clear link between investor protection and corporate health “expands our understanding of the role of investor protection in shaping corporate finance, by clarifying the roles which both the incentives and the law play in delivering value to outside shareholders.”

—Matthew Davis

On the Spread and Impact of Antidumping

According to NBER Research Associate **Thomas Prusa**, the World Trade Organization (WTO)’s contentious antidumping policies will be the source of an increasing number of international trade disputes and therefore will be a key element in the next round of WTO negotiations. In **On the Spread and Impact of Antidumping** (NBER Working Paper No. 7404) Prusa documents

some unexpected consequences of antidumping (AD) policies and argues that AD is easily misused.

Prusa notes that AD has been enthusiastically embraced in recent years by developing countries. AD’s traditional users were highly industrialized nations, including the United States and members of the European Community. But in recent years there has been unprecedented growth of “new” AD users, primarily developing countries.

Only a decade ago, Prusa observes, developing nations filed perhaps one or two complaints of dumping per year. Today such countries account for over 100 petitions annually, nearly half of the worldwide total. Filing of AD complaints rose by 25 percent in the last decade from the 1980s level. A total of 29 countries initiated such complaints in the 1990s, about triple the number of the previous 10 years. Mexico, for example, signed the GATT/WTO anti-

dumping accord in 1987 and within three years filed more than 30 complaints. Argentina filed its first AD case in 1991 and has since averaged almost 20 cases annually. Similar patterns have emerged in South Africa, India, Indonesia, Turkey, Malaysia, Peru, Israel, Colombia, Costa Rica, and Venezuela.

Just why this phenomenon has occurred has yet to be determined, but evidence suggests that developing countries may seek antidumping protection in a "tit-for-tat" retaliation to AD

procedures may be interpreted broadly, and once a nation seeks protection in one industrial sector, other sectors begin clamoring for similar protection. This may occur even though these sectors present minimal evidence of injury. Indeed, mere protectionism for special interests, rather than AD's stated objectives of maintaining fair pricing and competition, becomes paramount. In this regard Prusa suggests that legal experts are not wrong in labeling the appetite for AD as a form of international harassment.

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actions taken by the leading industrial states; fully two-thirds of AD complaints, for example, are lodged against other AD users. Alternately, developing nations may simply exploit AD as a convenient loophole to see tariffs enacted without violating existing tariff agreements. But whatever the motivation, Prusa says developing nations should be alert to the costs associated with AD protection.

There are two categories of costs of AD protection. The first, Prusa says, is that once a country seeks dumping protection, it becomes difficult to restrain its use. AD rules and

Secondly, Prusa says, AD duties are almost always remarkably large—even as much as 100 times higher than normal levels. Prusa's data indicate that the enactment of AD duties means import quantities on average fall by almost 70 percent and import prices rise by more than 30 percent. Ultimately this can negatively impact trade by anywhere from 30 to 50 percent. Yet even if a dumping complaint results in no sanctioning of duties, Prusa says, trade patterns can be distorted, with imports falling by about 20 percent. The evidence even indicates that the very act of investi-

gating such complaints results in a considerable drop in trade.

Prusa analyzes the effect of AD actions by examining data accumulated by the largest AD user—the United States—and recorded in the International Trade Commission's Annual Report. In examining the period 1987–97, he devises a formula for quantifying the effect on trade of AD petitions. The formula allows for interpretation not only of such petitions' impact on the exporting nations named in the complaints, but also the impact on competing exporters not subject to the complaints. As indicated above, whatever the determination of an AD complaint—imposition of duties, settlement, or rejection—a drop in value of trade will result.

The evidence clearly suggests that countries increasingly yield to the temptation to seek protection for significant import-competing industries. Yet if all countries use AD law, Prusa maintains, each country will be worse off than they would be under unrestricted free trade. In this interpretation, he adds, all users would benefit if everyone agreed to stop using the law. For this reason, Prusa concludes, policymakers would be well advised to weigh the repercussions of AD actions before rushing to initiate them. —Matt Nesvisky

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