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What Happened to Corporate Taxes?

The Tax Reform Act of 1986 has been cited as raising the tax burden on business. However, while corporate tax revenue is greater than it would have been under previous law, it has fallen persistently far short of projections made as little as one year in advance. Longer-range projections have fallen very wide of the mark: in the year ending September 1990, the tax brought in one-third less than the Congressional Budget Office (CBO) had forecast in 1987. Why the shortfall? NBER Research Associate **James Poterba** finds that companies changed their behavior in ways that reduced the government's corporate tax take—and that the tax law itself is partly responsible.

In **Why Didn't the Tax Reform Act of 1986 Raise Corporate Taxes?** (*NBER Working Paper No. 3940*), Poterba shows that corporate profits have run far below the levels projected when the tax legislation was being debated. In February 1986, the CBO projected that profits in future years would average over 8 percent of GNP. In fact, corporate profits have averaged only about 6 percent of GNP since 1987, and the proportion has been declining. The U.S. economy was relatively sluggish in the late 1980s, and therefore was not as friendly to profits as the middle years of the decade were.

In addition, Poterba finds, much of the decline in profits is caused by a rise in corporate interest payments, which jumped from 1.5 percent of GNP in 1986 to 2.6 percent of GNP in 1990. Leveraged buyouts account for some of those interest costs, but Poterba attributes much of the rise in corporate indebtedness to the higher aftertax relative return on debt for individual investors. "In 1980, the aftertax equity return for top bracket investors was significantly higher than that from investments in debt," he reports. "This pattern was reversed by the end of the decade." Since interest payments on debt are deductible from corporate income while dividends to shareholders are not, investors' preferences for debt tended to reduce reported profits.

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Owners of small businesses also sought to avoid an increased future tax liability implied by the 1986 reform through organizing their businesses in Subchapter S corporations. Subchapter S corporations pay no corporate tax; instead, their income is passed through to the owner and taxed on his or her personal income tax return. The reductions in personal marginal tax rates in 1981 and 1986, Poterba argues, also made Subchapter S corporations more attractive. After reporting only 2 percent of total corporate income in 1980, S corporations' share of corporate income grew

to 18 percent in 1990. The effect of this shift on government tax revenue is not clear, Poterba points out: while it has contributed to a decline in corporate tax receipts, it has raised the income reported under the personal income tax.

The corporate response to the 1986 tax law, Poterba says, confirms once again that financial flows react very quickly to changes in taxation. Corporate financing decisions are more sensitive to tax changes than savings or labor market behavior, he adds, because the costs and complications from equity to debt financing, or from one organizational form to another, are relatively small. The ease with which such shifts can be made, however, makes it particularly difficult to forecast the impact of tax law changes on corporate tax revenue. ML

Ways to Cut Drunk Driving and Save Lives

One of the most effective means of reducing drunk driving in the United States would be to raise taxes on beer. Another would be to suspend or revoke a driver's license for one year when the driver is caught with a specific blood alcohol content, or refuses to submit to a blood, breath, or urine test for alcohol.

In **Alcohol Control Policies and Motor Vehicle Fatalities** (*NBER Working Paper No. 3831*), **Frank Chaloupka, Michael Grossman,** and **Henry Saffer** note that since the mid-1970s, federal, state, and local governments have campaigned to reduce motor vehicle fatalities by discouraging alcohol abuse. One part of the campaign was the Alcohol Traffic Safety Act of 1983, which provides financial incentives for states to enact and enforce stringent drunk-driving laws. These measures include: certain, and more severe, penalties for drunk driving; easing the standards required for conviction; and increased spending on catching drunk drivers. A second law, the Federal Uniform Drinking Age Act of 1984, withheld federal highway funds from states that did not raise the minimum legal drinking age to 21 for all alcoholic beverages. As a result of those bills, over 500 new drunk-driving laws have been passed in this country.

The NBER study finds that if the beer tax were to be raised to its inflation-adjusted 1951 value, or 71.6 cents per six-pack, the number of drunk-driving fatalities would be cut by 11.5 percent. As part of a deficit reduction package, the federal tax *was* doubled at the start of 1991, to 32 cents per six-pack. This should reduce fatalities by about 3.9 percent.

If a state automatically suspends or revokes a drunk driver's license for a year on the basis of a specific blood alcohol content, then drunk-driving auto deaths will shrink by 9 percent, the authors estimate. Through 1988,15 states had mandatory administrative license sanctions of 10 to 180 days, not the full year.

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The authors estimate that a number of other policies will reduce drunk-driving fatalities by 5 or 6 percent. One is the universally accepted legal drinking age of 21. A second policy, which 25 states had in 1988, would permit police to administer a preliminary breath test for alcohol without the assistance of medical personnel. Dram shop laws, allowing a person injured by a drunk driver to bring suit against the person or establishment serving the alcoholic beverages, are now on the books of 35 states. Dram shop laws also would reduce fatalities by 5 or 6 percent.

Thirty-five states now levy relatively large mandatory fines, suspend or revoke licenses, or issue jail sentences for persons convicted of driving under the influence. These policies also save lives. But laws that do not permit those charged with driving under the influence to plea bargain, and mandatory license sanctions upon conviction, have less of a deterrent effect than the other policies do.

Further, this study finds that mandatory jail sentences with community service options have no deterrent effect on drunk driving. "Illegal per se" laws requiring conviction at a trial of a driver with a specific alcohol blood content also are ineffective. So are laws that impose a penalty if an open container of an alcoholic beverage is found in the passenger compartment of a vehicle.

To reach their conclusions, Chaloupka, Grossman, and Saffer looked at data from the 48 contiguous states for 1982 through 1988. Statistics on fatalities come from the National Highway Traffic Safety Administration's Fatal Accident Reporting System (NHTSA). The NHTSA provides the number of drivers killed in accidents between midnight and 4 a.m., an estimated 75 to 90 percent of whom had been drinking. A second dataset provided the blood alcohol concentration of drivers killed in crashes. Finally, the authors looked at fatality rates for youths aged 18 to 20. "Alcohol involvement in motor vehicle accidents is estimated to be three times higher in the 18-to-20-year-old group than it is in the overall population," they note. DRF

Trade Promotes Growth

The dramatic success of the economies of east Asia focuses attention on the importance of international trade in growth and development. Although Japan, Korea, Taiwan, Hong Kong, and Singapore did not all practice free trade, they all did rely heavily on exports as the basis for their spectacular long-term growth. By contrast, the developing countries that tried to grow by replacing imports with domestic production did not grow as fast. Now a recent NBER study by Faculty Research Fellows **Nouriel Roubini** and **Xavier Sala-i-Martin** confirms the value of an outwardly oriented development strategy.

In **Financial Development, the Trade Regime, and Economic Growth** (*NBER Working Paper No. 3876*), they examine the growth rates of per capita income in 59 countries during 1960–85. Using the World Bank classification of these countries, based on various measures of trade policy, as strongly or moderately outward oriented or inward oriented, they find that the strongly outward-oriented countries had an annual growth rate that was 2.5 percent higher on average than the strongly inward-oriented countries.

This conclusion is confirmed when the authors use the effective rate of protection and the misalignment of the exchange rate as measures of inward or outward orientation. Also, this second measure of trade orientation explains a large part of the difference in growth rates between east Asia and Latin America during 1960–85.

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Roubini and Sala-i-Martin further observe lower growth in countries where interest rates are more than 5 percentage points below the inflation rate. In fact, countries with interest rates greater than their inflation rates grew 1.3 percentage points faster on average than countries whose interest rates were more than 5 percentage points lower than inflation. The authors explain that low real interest rates result in firms and individuals having inordinately large incentives to borrow. Low real rates also cause governments to make loans for political, rather than economic, reasons. Thus, it is the politically well-connected borrowers, rather than the most efficient borrowers, who will tend to get loans. As a result, growth will suffer.

Finally, the authors report that an increase in the annual inflation rate of 10 percent is associated with a reduction in per capita income growth of 0.5 percent. However, they suggest that low growth may be the cause, as well as the result of, higher inflation.

High School Equivalents Are Not

Since World War II, high school dropouts have been able to receive certification as high school graduates by taking an exam. The GED (General Educational Development), the most common of these exams, has become increasingly popular and now is used in all 50 states. GED recipients have increased from less than 2 percent of those certified as graduating from high school in 1954 to over 14 percent in 1986.

Now an NBER study by **Stephen Cameron** and **James Heckman** finds that GED certification has little effect on wages or earnings. In **The Nonequivalence of High School Equivalents** (*NBER Working Paper No. 3804*), the authors find in a national sample of 25-year-old men that those workers who actually attended and graduated from high school earned 17 percent more than workers with GED certificates. The GED-certified workers earned only 5 percent more than high school dropouts without certificates

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However, Cameron and Heckman can explain these differences in earnings entirely by differences in actual years of education. That is, the high school graduates had 12 years of schooling, the GED workers had 10.4 years, and the high school dropouts had 9.5 years. The authors conclude that taking a test is no substitute for sitting in a classroom. Only persuading dropouts to stay in school, or to return for further education, will increase their attractiveness to employers.

Cameron and Heckman note that the typical GED recipient spends very little time or effort preparing for the test. A 1980 survey found that half of those who take the GED test spend less than 20 hours preparing for it, while only one person in 20 spends as much as 200 hours in preparation. Nonetheless, 70 percent of those who take the exam at any given sitting pass it. Given the low personal cost of taking and passing the exam, it is not surprising that the return on a GED certificate is so low.

New NBER Books

Trade with Japan: Has the Door Opened Wider?

This volume, edited by Paul R. Krugman, looks at Japanese trade patterns, financial markets, retail and wholesale distribution networks, and industrial and trade policy. Researchers from the United States and Japan contributed to this volume, which should interest those in business and government as well as academic economists.

Krugman is an NBER research associate in international studies and a professor of economics at MIT. *Trade with Japan* sells for $50.

Inside the Business Enterprise: Historical Perspectives on the Use of Information

Edited by Peter Temin, this book links modern economic theory with recent business history. It describes in detail some historical incidents in the birth of the modern business enterprise during the Gilded Age.

Temin is a research associate in the NBER's Program in Development of the American Economy and a professor of economics at MIT. The clothbound version of this volume sells for $43; the paperback is $14.95.

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