

The NBER Digest

NATIONAL BUREAU OF
ECONOMIC RESEARCH, INC.

December 1987

The Effect of Tax Reform on Homeownership

The Tax Reform Act of 1986 will allow 300,000 more married couples under 45 to own their homes, according to an NBER study by **Donald Haurin, Patric Hendershott, and David Ling**. The increase in aftertax income that these couples will receive, combined with a reduced cost of owning versus renting, will result in an increase in their homeownership rate from 67.75 percent to 69 percent over several years.

In **Homeownership Rates of Married Couples: An Econometric Investigation** (*NBER Working Paper No. 2305*), Haurin, Hendershott, and Ling estimate the responsiveness of homeownership to changes in price and income for households in various age and income groups. Because that responsiveness declines with age, the 1986 tax act will bring about more changes for young married couples than for older couples.

Haurin, Hendershott, and Ling first compute the effect of tax reform on couples' aftertax income, based on their pretax income, family size, and ownership status. While lower marginal tax rates will reduce the tax benefits of homeownership, other changes in the tax law will discourage investment in rental properties and eventually will raise real rents. The net result of these effects of tax reform is to lower the relative cost of homeownership by 10 to 15 percent.

Haurin, Hendershott, and Ling also note that homeownership rates rose from 1973 to 1979, but then

fell during 1980-83. For instance, the ownership rate for married couples aged 30 to 34 was 70.8 percent in 1973, 75.1 percent in 1979, and 70.2 percent in 1983. Part of the increase during 1973-9 came from increased income and part from decreased owner costs relative to rental costs; the decrease during 1979-83 was solely the result of a rise in the relative cost of owning.

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Finally, Haurin, Hendershott, and Ling note that ownership rates among married couples rise sharply with age. Only 31 percent of couples under 25 owned their own homes in 1983, versus 81 percent of couples aged 35 to 44. The authors estimate that 40 percent of this age-related increase is caused by increased income and reduced mobility, both of which are associated with age. The other 60 percent is probably the result of the greater wealth and larger families of the older married couples, they conjecture.

Corporate Tax Liabilities and Individual Taxpayers

Last year's tax reform shifted \$25 billion of taxes away from individuals to corporations. However, since corporations are owned by individuals, their taxes ultimately are paid by individuals. Earlier estimates that showed tax cuts for individuals at all income levels ignored this fact. Now, a new NBER study by **Martin Feldstein** estimates that the 1986 tax reform will increase the taxes of the wealthy and the elderly and will decrease the taxes of younger people.

In **Imputing Corporate Tax Liabilities to Individual Taxpayers** (*NBER Working Paper No. 2349*), Feldstein estimates how tax reform will change the total taxes paid by individuals in different income classes. The total tax paid includes both taxes paid directly through the individual income tax and taxes paid indirectly through the corporate tax.

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He finds that the 44 million taxpayers with incomes between \$10,000 and \$30,000 will see their taxes decline by an average of about \$75. The 23 million taxpayers with incomes between \$30,000 and \$50,000 will see their taxes fall by almost \$200, while taxpayers with incomes above \$50,000 typically will pay more, especially those at the higher income levels.

Feldstein estimates that the 2.3 million taxpayers with incomes between \$75,000 and \$100,000 will pay an average of \$1100 more in taxes. The 1.6 million taxpayers in the \$100,000 to \$200,000 range will pay \$3300 more, and taxpayers with incomes over \$200,000 will see their total tax bill rise by almost \$19,000, or 13 percent of their total tax liabilities under the old tax law.

Feldstein also finds that total taxes will increase for the typical taxpayer over age 65 with income above \$10,000. The increase ranges from 12 to 17 percent, except for the richest group: elderly taxpayers with incomes over \$200,000 will have 8 percent higher total tax liabilities. In contrast, the total taxes of the typical nonelderly household will fall. Only nonelderly households with incomes over \$75,000 will pay higher taxes as the result of the 1986 tax reform.

Stock Prices and Inflation

When the stock market is surprised by unexpectedly high inflation, the share prices of firms with high debt-to-equity ratios rise, according to a recent study by NBER Research Associate **Vance Roley** and **Douglas Pearce**. On the other hand, the share prices of firms that use first-in-first-out (FIFO) accounting rules and have large inventories decline with unexpected inflation.

In **Firm Characteristics, Unanticipated Inflation, and Stock Returns** (*NBER Working Paper No. 2366*), Roley and Pearce analyze how stock prices respond to monthly announcements of the consumer price index (CPI). Unexpected inflation is defined as the difference between the actual CPI and the predictions of forecasters made two weeks before the CPI announcement.

Roley and Pearce estimate that an inflation surprise of one percentage point decreased the price of the average firm by 1.9 percent from November 1977 to December 1982. Firms in the highest third in terms of the ratio of long-term debt-to-equity but average in other respects had stock price increases of 3.6 percent. Firms that used FIFO and were in the top third ranked by inventories but were otherwise average saw their stock prices *fall* by 6.3 percent. In contrast, firms in the lowest third based on debt-to-equity ratio or the value of inventories experienced a decline in their stock price of 3.7 percent and a price rise of 0.1 percent, respectively.

Roley and Pearce explain that inflation tends to benefit firms that borrowed large amounts of money at fixed nominal interest rates, since their future payments of principal and interest are set while the prices of their output and their profits will rise. However, firms that value the change in their inventories according to FIFO will see their taxes increase, and thus will be hurt by inflation.

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Roley and Pearce interpret their results as evidence against two alternative hypotheses of the stock market. The first states that investors system-

atically misunderstand the effect of inflation on future profits. The second assumes that stock prices fall when inflation rises because investors expect an economic downturn to follow the inflation. In fact, it is the anticipated downturn rather than the inflation itself that depresses stock prices. If the two hypotheses were true, then higher inflation would cause *all* stock prices to fall, not just the prices of firms with low debt or large inventories.

Prenatal Care Reduces Infant Mortality

The most efficient way to reduce the rate of infant mortality in the United States is through increased use of prenatal care and supplemental food programs (such as the federal government's WIC program), according to a recent study by the National Bureau of Economic Research. Neonatal intensive care, while highly effective, is also one of the most expensive solutions, conclude authors **Michael Grossman, Hope Corman, and Theodore Joyce.**

Infant mortality rates declined rapidly in the United States between 1964 and 1983, but remained higher than rates in a number of other developed countries. While infant mortality rates fell an average of 4.3 percent per year over that 20-year period, reaching 11.2 deaths per 1000 live births, the decline slowed after 1980. Further, infant mortality rates were twice as high for blacks as for whites in both 1964 and 1983.

In **A Cost-Effectiveness Analysis of Strategies to Reduce Infant Mortality** (*NBER Working Paper No. 2346*), Grossman, Corman, and Joyce estimate the cost of various health policies and programs in saving infants' lives. They consider prenatal care, neonatal intensive care, abortion, family planning clinics, community health centers, maternal and infant care projects, and WIC. They find that the initiation of prenatal care in the first trimester is the most cost-effective way to prevent neonatal deaths. WIC is the second most cost-effective program (followed by abortion, family planning, community health projects, and neonatal intensive care, in that order).

That pattern is about the same for blacks and whites. However, with minor exceptions, *all* of the programs are more cost-effective for blacks than for whites. Thus, if the most effective programs were expanded,

or if they were utilized more by black women, some of the current gap in black-white neonatal mortality rates might be closed.

Neonatal intensive care may save as many as 15 additional lives per 1000 additional white participants, compared to about 8 lives for prenatal care and 4 for the WIC program. However, intensive care is far more expensive per participant than the other approaches are. Grossman, Corman, and Joyce estimate that the average cost per patient in neonatal intensive care was \$13,600, compared with \$176 and \$145 per participant in prenatal care and the WIC program, respectively.

Since many of these babies would have lived without these programs, and since some die in spite of them, the cost per life saved is of course much higher. The authors find that the average cost per life saved for whites is at least \$890,000 for intensive care but only \$23,000 for prenatal care and \$39,000 for the WIC program. For blacks, the costs are at least \$1.4 million for neonatal intensive care versus \$16,000 for prenatal care and \$21,000 for the WIC program.

“The initiation of prenatal care in the first trimester is the most cost-effective way to prevent neonatal deaths.”

For blacks, prenatal care is not only less expensive than neonatal care but also may be more effective. It could save as many as 12 additional lives per 1000 additional black participants versus 10 lives per 1000 additional participants in neonatal intensive care. The WIC program could save 7 lives per 1000 additional black participants, according to Grossman, Corman, and Joyce.

The authors base their evaluations of the various programs on neonatal mortality rates by race across large counties in the United States in 1977. These counties cover about 80 percent of all whites and blacks living in the United States. The data also reflect about 80 percent of all U.S. births from 1976–8. All of the costs used are converted to 1984 dollars.

Recent NBER Books

Mergers and Acquisitions

Mergers and Acquisitions, edited by Alan J. Auerbach, is available from the University of Chicago Press at a cost of \$17.95. This nontechnical volume of papers presented at an NBER conference in October 1986 surveys some of the issues created by the recent boom in takeovers. For example, one paper asks whether mergers have led to financial instability. Another considers how mergers affect the interests of stockholders. A third study analyzes the role of taxes in mergers and acquisitions. There is also an in-depth analysis of the implications that this wave of activity has for industrial structure and concentration.

This book should appeal to a wide audience and is must reading for anyone interested in corporate finance and recent trends in business.

Auerbach is a professor of economics at the University of Pennsylvania and an NBER research associate.

Pensions in the U.S. Economy

Pensions in the U.S. Economy, edited by Zvi Bodie, John B. Shoven, and David A. Wise, is available from the University of Chicago Press for \$28.00. This fourth in a series of NBER books on pensions should interest both economists and policymakers who are concerned with the economic status of the elderly.

Four papers focus on retirement saving, both by individuals and by corporations through their funding of pension plans. These papers consider the use of

Individual Retirement Accounts, why individuals do not purchase more annuities, why pension contributions have fallen recently, and why a large portion of the elderly remain poor despite gains for the elderly population as a whole.

The final two papers analyze pension plans. Specifically, one considers the relative merits of defined-contribution versus defined-benefit plans; it includes new data that could be used in designing plans that would incorporate the best features of both. The second paper evaluates the various incentives built into pensions and discusses how they influence job turnover.

Bodie is a professor of finance at Boston University. Shoven is a professor of economics at Stanford University, and Wise is a professor of political economy at Harvard's Kennedy School of Government. All three are research associates of the National Bureau of Economic Research.

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