

The NBER Digest

NATIONAL BUREAU OF
ECONOMIC RESEARCH, INC.

August 1982

The Impact on Capital Allocation of the 1981 Tax Act

The long-run impact of the 1981 tax act may be to increase the stock of business investment at the expense of owner-occupied housing, according to a simulation analysis by NBER Research Associate **Patric H. Hendershott** and **James D. Shilling**. Hendershott and Shilling's assessment focuses on the allocation of the capital stock by assuming in the simulations that the tax cuts have no effect on aggregate savings. Thus, an increase in investment in one area necessarily involves a decrease in another area. In reality, it is possible that at least some of the greater business investment could come from new savings. At the very least, however, it appears that the tax cuts made business investment considerably more attractive relative to owner-occupied or rental housing.

In **The Impacts on Capital Allocation of Some Aspects of the Economic Recovery Tax Act of 1981**, *NBER Working Paper No. 825*, Hendershott and Shilling estimate the effects of the 1981 tax cuts on the aftertax user cost of capital for business investment, owner-occupied housing, and rental housing. By a series of simulations, they calculate the likely responses of people in various income brackets to each of several tax changes, and the resulting reallocation of capital. The assumption of a fixed capital supply enables them to focus on the purely allocative effects of the tax changes.

Hendershott and Shilling develop a five-asset, four-household, single business sector model to perform their simulations. The assets are equities, taxable debt, tax-exempt debt, rental housing, and owner-occupied housing. The four households are families in four income brackets, with some families in each bracket renting and others owning their homes. The specific tax provisions tested are faster depreciation of business investments, faster depreciation of rental housing, and the maximum 50 percent tax rate on unearned income. The simulation method is designed to calculate the long-run effects of these changes.

"The long-run impact of the 1981 tax act may be to increase the stock of business investment at the expense of owner-occupied housing."

First, Hendershott and Shilling estimate how each change would alter demand for each of the five assets within each of the four income groups. They then combine all three tax changes in simultaneous simulations to arrive at the net impact. It appears that—in the absence of an increase in aggregate savings—

The Effects of the Minimum Wage

real, pretax interest rates would rise by nearly two percentage points in response to greater demand for business capital. Over the long run, the stock of nonresidential capital would grow about 6 percent, and the housing stock would drop about 8 percent. All of the decline in housing investment would come from owner-occupied homes. The stock of rental housing would be essentially unchanged, with an increase in the number of renters offsetting a decline in the quantity of housing per renter.

In estimating the effect of faster depreciation of nonresidential business assets, Hendershott and Shilling assume that the depreciation portion of the user cost of capital declines by four percentage points. This figure is in line with an earlier calculation by Hendershott and Sheng Hu. That change alone pushes interest rates up two percentage points in order to restrain the total demand for capital to the existing capital stock. The real user cost for business capital falls slightly even with the higher interest rates, while the user costs of both owner-occupied and rental housing rise. In the long run, business capital grows and both owner-occupied and rental housing shrink.

The reduction in the minimum tax on unearned income has very different effects. Its initial impact is on the highest income class alone, where it makes investments in taxable debt somewhat more attractive relative to all other assets. As a result, the taxable debt yield declines, and people in the lower tax brackets shift out of taxable debt and into other holdings. The simulations suggest that the portfolio adjustments within income groups may be very dramatic, but the overall effects on capital allocation appear modest. Owner-occupied housing—more attractive to all but the highest income group because of the lower interest rates—rises slightly, and rental housing and business investment both decline slightly.

By itself, the faster write-off of rental housing reduces the user cost and boosts demand. The simulations indicate that the rental housing stock would rise about 8 percent over the long run, with most of the new investment shifting out of owner-occupied housing.

When the three tax changes are considered together, the sharp increase in the nonresidential capital stock still occurs. But nearly all of it is at the expense of owner-occupied housing. The stock of owner-occupied housing drops 11 percent in the simulations, while the stock of rental housing declines by less than 1 percent. In terms of the user costs of capital, it appears that the 1981 tax cuts went a long way toward eliminating a strong bias in favor of housing. Earlier work by Hendershott and Hu indicated that the net cost for corporate capital was about two percentage points higher than the cost for rental housing, and five points higher than the cost for owner-occupied housing. Hendershott and Shilling estimate that the user cost of corporate investments is now about even with the cost for rental housing, and only three percentage points higher than the cost for owner-occupied housing. AE

By initially passing or increasing the minimum wage, Congress believed it would benefit the inexperienced young worker, among others. But, according to *NBER Working Paper No. 849* by Research Associate **David A. Wise** and **Robert H. Meyer**, it has not done so on average. Rather, the authors note in **The Effects of the Minimum Wage on the Employment of Youth**, such legislation boosted unemployment among young male workers without any offsetting increase in total wages going to these youths. In fact, if there had been no minimum during the 1973–78 period, Wise and Meyer estimate, employment among out-of-school men 16 to 24 years old would have been approximately 4 percent higher than it actually was. This employment effect is proportionately more serious for the younger men. Among those 16 to 19, employment would have been about 7 percent greater, and among those 20 to 24, 2 percent higher. Moreover, the impact of the minimum wage was greatest on black youths. Without it, some 6 percent more of them would have had jobs.

The authors' data come from the Census Bureau's Current Population Surveys taken in 1973, 1976, 1977, and 1978. From these data, a random sample of 5000 out-of-school men, aged 16 to 24, is gleaned and information on their employment status and hourly wages studied. The findings of the study coincide with the argument that the minimum wage should have its most concentrated effect on those who would have earned subminimum wages if their wages were set by the market and not by the law.

It has sometimes been argued in Washington that a lower minimum wage should be set for youths than for adults. The authors say that the desirability of such an action depends on the goals sought. If an increase in total employment is the goal, then more could be gained by reducing the minimum for older youths than for younger youths. That is because there are about ten times as many out-of-school older youths, aged 20 to 24, as younger, aged 16 to 17. If the minimum were totally eliminated, potential employment would increase 2.2 percent for the 20- to 24-year-olds and 8.7 percent for those 16 and 17. But because of the difference in the number of youths in the two age brackets, the action would add to the employment rolls about 2.5 times as many older youths as younger youths.

Obviously the legislated minimum wage means that some youths are paid more than they might otherwise get if labor market mechanisms alone prevailed. However, Wise and Meyer find that the increased earnings of these youths is offset by the nonemployment and thus zero earnings of others. So, as a whole, earnings of young men are about the same with the minimum legislation as they would be without it.

An Analysis of the Business Outlook Survey

If Congress had not raised the minimum during the 1973–78 period, inflation would have greatly moderated the adverse employment effects of the minimum wage. Wise and Meyer calculate that if the minimum had remained at its 1973 level, about two-thirds of the potential employment gains from full elimination of the minimum would have resulted. The authors note that those youths who are not employed not only lose current income but also, and more importantly, lose the work experience that might provide higher wages in the future. Not obtaining job skills, they may stay out of work longer than otherwise, Wise and Meyer add.

Another finding of the study is that the minimum wage law has had no identifiable tendency to push even higher those wages that the market has placed above the minimum wage level. Many businessmen have argued to the contrary.

“If there had been no minimum during the 1973–78 period, employment among out-of-school men 16 to 24 years old would have been approximately 4 percent higher than it actually was.”

Finally, the study produced two unexpected results. One was that no relationship was found between age and the probability of employment—once the data were corrected to take account of schooling, race, and in particular marital status. The results seem to reflect a greater desire for employment on the part of married men, although it may be that employment induces marriage as well. But age in and of itself may not be the major determinant of employment.

The second result is related to the fact that during the 1973–78 period, a large number of young men from the baby-boom generation entered the job market. This apparently depressed the wage level for young white men, relative to that of adults. However, the same did not appear to be true of average wage rates of black youths.

Wise and Meyer find that the *market* wage rates of both blacks and whites were falling. But so many black youths were without work because of the minimum wage that their observed *average* wage rate remained high while their *market* wage rate was lower. In any case, the lower market wages of young men (both black and white) increased their probability of being employed between 1973–78.

DF

The forecasters in the NBER/ASA Business Outlook Surveys from 1968 to 1979 consistently underestimated inflation and overestimated real growth, according to a recent study by NBER Research Associate **Victor Zarnowitz**. In **Expectations and Forecasts from Business Outlook Surveys**, *NBER Working Paper No. 845*, Zarnowitz presents a progress report on an ongoing study of the distribution of individual predictions from the surveys.

The NBER/ASA survey was instituted in 1968; it asks representatives of business, finance, government, and academia to predict quarterly developments in a number of economic variables for the year ahead. Zarnowitz's paper looks at data from 42 surveys, covering the fourth quarter of 1968 to the first quarter of 1979, and representing 79 individual respondents with regular participation records. His analysis focuses on six variables: inflation, real growth, unemployment, percent change in GNP, spending on consumer durables, and investment in business inventories. Among the questions addressed in the paper are: How accurate are the individual expectations relative to average predictions of the group? How frequent and significant is the bias in the errors? Are errors in the prediction of one variable related to errors in the prediction of another variable? How accurate are the average forecasts by variable and by time horizon?

Zarnowitz first finds that the mean predictions of the group are, on average over time, more accurate than corresponding individual forecasts of any given variable. “For most people, most of the time, the predictive record is spotty, with but transitory spells of relatively high accuracy.” Typically, for any particular variable, no more than one-fifth to one-third of the individuals outperformed the group. One reason is that, “A series of group averages has the advantage that it is helped by the cancellation of individual errors of opposite sign.”

The errors of both group and individual forecasts increase over predictive spans, but by decreasing margins. That is, Zarnowitz explains, “The more distant the target quarter, the larger tend to be the prediction errors. . . .” But these increases in the errors tend to taper off.

Considering next the relationships among the predictions for the different variables, Zarnowitz finds that almost all of the survey members underestimated inflation. This was by far the main source of bias in the economic expectations for the 1970s. On the other

“The forecasters in the NBER/ASA Business Outlook Surveys from 1968 to 1979 consistently underestimated inflation and overestimated real growth.”

hand, real growth was predominantly overestimated, increasingly so for the more distant future. The errors in the predictions of percent change in GNP were very small, but mostly negative (that is, the variable was slightly underestimated). The unemployment rate

was also slightly underestimated, as were the short-run rates of change in spending on consumer durables.

Zarnowitz cautions that his results may be specific to the period 1968–79. “After a decade of relatively stable and high rates of growth, the 1970s gave rise to a novel phenomenon commonly called stagflation and an unexpectedly serious recession: these facts should go far in explaining the average overestimation of real growth observed in our data.” He nonetheless concludes that, “In sum, there is the familiar tendency toward underestimation of change in most of the forecasts, with the important exception of real GNP.”

NBER

The National Bureau of Economic Research is a private, non-profit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

Chairman—*Eli Shapiro*
Vice Chairman—*Franklin A. Lindsay*
Treasurer—*Charles A. Walworth*
President and Chief Executive Officer—*Martin Feldstein*
Executive Director—*David G. Hartman*
Director of Finance and Administration—*Sam Parker*

Contributions to the National Bureau are tax deductible. Inquiries concerning contributions may be addressed to Arthur D. Clarke, Director of Development, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138.

The NBER Digest summarizes selected Working Papers recently produced as part of the Bureau's program of research. Working Pa-

pers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision. The Digest is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Digest has been reviewed by the Board of Directors of the NBER. Preparation of the Digest is under the supervision of Donna Zerwitz. The articles indicated by AE and DF were prepared with the assistance of A. F. Ehrbar and David Francis, respectively.

Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates and other supporters of the National Bureau. For all others, there is a charge of \$1.50 per paper requested. Prepayment is required for all orders under \$10.00. For further information, please contact: Working Papers, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138. Abstracts of all current National Bureau Working Papers appear in the NBER Reporter.