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Inflation, Taxes, and Investment

It is a well-known and disturbing fact that the rate of business fixed investment in the United States has fallen quite sharply since the mid-1960s: net nonresidential fixed investment dropped from 4.0 percent of national income in the period 1965–69 to 2.5 percent of national income between 1970 and 1979. The rate of growth of the (nonresidential) capital stock has declined even more, from an average of 5.5 percent in 1965–69 to an average 3.2 percent in the 1970s. In **Inflation, Tax Rules, and Investment: Some Econometric Evidence,** *Working Paper No. 577,* NBER President **Martin Feldstein** uses three different models of investment behavior to look at the effect that taxes, interacting with inflation, have had on business investment from 1953 to 1978.

Feldstein makes the point early in the paper that the interaction of inflation and tax rules is, by nature, complex. On one hand, nominal interest rates have been high, and firms can deduct their nominal interest costs in calculating taxable profits. The real (that is, adjusted for inflation) net-of-tax interest rates that firms pay may actually have been negative, therefore encouraging investment. On the other hand, depreciation deductions are based on the original (preinflation) cost of assets, so higher inflation may reduce real corporate earnings. In sum, "the effect of inflation on the incentive to invest depends on balancing the change in the cost of funds . . . against the change in the maximum potential return that firms can afford to pay."

Another way of looking at this complex interaction is as follows: original cost depreciation, taxation of nominal capital gains, and other tax rules may result in higher effective tax rates on the capital income of corporations, their owners, and their creditors. This will reduce the real net rate of return that suppliers of capital can receive (on nonresidential fixed investment), thus reducing the incentive to save and distorting savings away from nonresidential fixed investment.

In the first part of his study, Feldstein focuses on what has happened to real net-of-tax rates of return (RN). He calculates RN based on pretax rates of return and effective tax rates. While pretax rates of return have varied both cyclically and from year to year, averaging 11.0 percent from 1953 to 1979, the fluctuations do not prove important in the calculations. Effective tax rates, on the other hand, have been rising steadily since the mid-1960s (from about 0.57 to about 0.74 in the mid-1970s). As a result, RN was around 3.3 percent in the 1950s, 6.5 percent in the mid-1960s, and only 2.8 percent in the 1970s. Feldstein estimates that if RN had remained at its 1965 level, "net investment from 1970 to 1978 would have taken an average of 4.1 percent of GNP instead of the actual average of only 2.5 percent."

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In a second analysis, Feldstein relates net investment to the difference between the potential and actual cost of funds and the rate of capacity utilization. Calculated this way, the incentive to invest is shown to be quite powerful in the mid-1960s but drops sharply in the mid-1970s. He finds that if "returns over costs" had remained at their 1965 level, the investment ratio in 1970–77 would have been 40.0 percent higher.

Finally, Feldstein compares the actual cost of capital during the period to potential figures based on the 1965 real and nominal cost of funds. In actual terms,

the cost of capital fell sharply between the mid-1960s and mid-1970s. "Without the increase in inflation," he observes, "the incentive to invest would have become stronger rather than weaker in the decade after the mid-1960s."

In sum, Feldstein finds that the three quite different specifications all support the same conclusion that the heavier tax burden associated with inflation has substantially depressed nonresidential investment in the United States. "The adverse changes in the tax variables since 1965 have depressed investment by more than 1.0 percent of GNP, a reduction that exceeds 40.0 percent of the rate of investment in recent years."

The Value of Professional Investment Research

Several years ago, Wall Street was alive with talk of the "dart board theory of investments," alias the "random walk hypothesis" or the "theory of efficient markets." To oversimplify, the theory holds that an investor need not buy expensive investment research. He can get just as good a rate of return in the stock market by throwing darts at the newspaper's stock lists and selecting a portfolio that way.

Variations in the performance of stock portfolios, certain academics argue, are the result of pure chance or differing levels of risk among the stocks in the portfolio. Differing performance is not due to the investment sagacity or stupidity of the portfolio manager. This is because markets in commonly traded stocks are "efficient"—that is, the prices reflect all the publicly known information on each corporation. As each new fact comes along, there are enough intelligent buyers and sellers standing by to take into account the new information. Consequently, the price changes almost immediately to a new, appropriate level. Unless an investor has inside information not known to the investing public in general, he cannot beat the stock market averages except by good luck. Price movements of stocks, except for the result of new information, are a random walk—quite unpredictable.

Ever since the popularization of this theory, academics have sought to disprove it in one way or another. In *Working Paper No. 536,* **Further Evidence on the Value of Professional Investment Research,** three economists maintain that following the stock market buy and sell recommendations of at least one unidentified national brokerage house would have been rewarded fairly consistently by a return about 2 percent per annum above the broad stock market averages. The three authors are NBER research associates **Wilbur G. Lewellen** and **Gary G. Schlarbaum,** and **Kenneth L. Stanley** of Emory University.

Such research results are encouraging to Wall Street. Brokerage houses and publishers of market letters spend large sums hiring stock analysts and other researchers to produce investment studies and recommendations for their customers. Investors pay for the research, either directly through subscriptions to investment advisory services or indirectly in the commissions charged by brokerage firms for buying and selling stocks for their customers.

An extra 2 percent return, compounded annually, could be a significant reward for an individual investor. It would cover his or her commissions on stock trades and presumably make it worthwhile to take the trouble to read the research reports of a brokerage house.

The NBER study is unusual in that it not only examines the theoretical, potential returns an individual investor could have received by following the recommendations of the brokerage house, but it also examines the actual returns received by customers of the house when they did follow their broker's advice.

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Data for the investigation consisted of a file of all common stock transactions executed between January 1964 and December 1970 in a random sample of some 2,500 accounts of a large, nationwide, retail brokerage house. The account holders were all individual, rather than corporate or institutional, customers of the firm. A questionnaire survey of the group, the authors note in their study, revealed it to have a demographic profile that was not only diverse but quite representative of the general population of U.S. common-stock holders at the time. Approximately 175,000 separate trades in just under 4,000 different common stocks are included in the file. A second set of data consisted of some 6,000 stock recommendations of the brokerage house.

Using these data, the authors find that by following the recommendations, investors could in theory beat a broad average such as the Standard & Poor's 500 stock index. This advantage holds up even when the varying risk involved in the stocks recommended is taken into account.

Moreover, the investors did actually make such extra returns by taking advantage of some of the recommendations during the seven-year period. "Indeed," write the authors,"certain of the annualized differen-

tial-return figures are quite impressive. The securities research reports at issue must therefore have contained at least some new information and/or analytical insights of value."

Interestingly, investors did especially well if they bought or sold the stock several days in advance of the formal recommendations themselves. This anticipation, the authors explain, "is attributable to information 'leakage' in the research process within the brokerage firm. Account executives frequently will learn of the tone of a research report while it is still in preparation, and begin to pass along trading suggestions to their customers before the report is formally released. Such preliminary indications to account executives of the character of imminent recommendations will, in fact, be conveyed quite deliberately on occasion."

Another factor explaining the tendency of the stock price to move in advance of the date of the formal recommendation is that often some favorable or unfavorable development in the recent past may have prompted the brokerage firm's research staff to undertake its own analysis. So the stocks recommended may have already been attracting some attention on the part of investors.

The study also finds that the brokerage house customers were able to buy recommended stocks (or sell them "short" if the recommendation was negative) at prices that enabled them to take advantage of the higher potential return. In other words, the rush to follow the recommendations did not affect the stock price so fast that the latecomers were not able to make an extra gain. However, by the tenth day after the formal recommendation there was some movement of the price —unfavorable to the customers—of statistical significance, though not large enough to cancel out the advantage. DF

Self-Employment and Older Males

There has been a great deal of interest recently in the decision to retire and the factors that influence that decision. Most studies have concentrated on salaried workers, despite the fact that "the increased importance of self-employment at older ages is a well established feature of the U.S. labor market." To remedy the situation, NBER Research Associate **Victor R. Fuchs** has done a comprehensive study of older men and the likelihood of their switching to or continuing to work in self-employment.

In *Working Paper No. 584R,* **Self-Employment and Labor Force Participation of Older Males,** Fuchs analyzes data from the Retirement History Study (RHS) on white, urban males ages 58–63 in 1969. The RHS surveyed the same men about their work patterns in 1971 and 1973, so Fuchs was able to observe the changes that took place as the men in the sample grew older. During each two-year period, he finds, about 5 percent of the men switched from salaried jobs to self-employment.

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Who switches to self-employment? Fuchs asks first. Most often, men who had previously been self-employed, or whose jobs were similar to self-employment in that compensation was tied to performance (for example, salesmen and managers). He also observes that men with very long or very short work weeks are most likely to become self-employed. Workers who are not eligible for a private pension and are not subject to mandatory retirement are also more likely to switch, while factors such as health status, education, age, wages, and expected Social Security benefits are not found to be significant in this decision.

Next, Fuchs asks, Which men in the study continue to work in their sixties? Primarily, those who are self-employed. Those in good health also continue, as do the men without private pensions, and those who have not reached the age of eligibility for Social Security benefits. The more years of schooling a man has, the more likely he is to continue working; white-collar workers are also more likely to keep working than blue-collar workers. One surprising factor also emerges from Fuchs's analysis: the men who work fifty or more hours a week are more likely to continue working than others with like characteristics.

Finally, Fuchs asks why certain of the men withdraw from the labor force at these ages. He finds that eligibility for Social Security benefits and poor health are the most important reasons. Another important influence is eligibility for a private pension. On the other hand, Fuchs observes that age alone, and wages, are of little or no importance in the decision to stop working.

Seniority in U.S. Workplaces

Does seniority, independent of productivity, count in decisions regarding promotion or termination? Ab-

solutely, report NBER Research Associate **James L. Medoff** and Research Analyst **Katherine G. Abraham** in *Working Paper No. 618*, **The Role of Seniority at U.S. Workplaces: A Report on Some New Evidence.** Medoff and Abraham recently surveyed a scientifically selected sample of over one thousand U.S. companies in the private sector that were not engaged in agriculture or construction. They received 561 usable responses to their questions involving promotion and termination policies at these companies.

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Based on the survey results, the authors estimate that 50 percent of all private sector, nonagricultural, nonconstruction employees work in firms where seniority is favored substantially in promotion decisions. Further, they estimate that 73 percent of that group work in firms where seniority affords substantial protection against job loss. Interestingly, while seniority does tend to be more strongly rewarded in unionized environments, Medoff and Abraham find that seniority very often carries substantial weight in promotion and termination decisions in nonunion settings as well. Among nonunion employees, seniority per se is particularly important for hourly workers and less important for salaried employees.

Medoff and Abraham conclude that "while there appear to be important differences for hourly versus salaried employees and for those covered by collective bargaining versus those not so covered, the new evidence presented in this study strongly supports the claim that seniority, independent of productivity, plays a major role in the compensation and termination decisions affecting all employee groups at most U.S. workplaces."

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