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Volume Title: Taxes and Capital Formation

Volume Author/Editor: Martin Feldstein, ed.

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-24079-7

Volume URL: http://www.nber.org/books/feld87-2

Publication Date: 1987

Chapter Title: Consumer Spending and the After-Tax Real Interest Rate

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Chapter URL: http://www.nber.org/chapters/c7695

Chapter pages in book: (p. 97 - 100)

11 Consumer Spending and the After-Tax Real Interest Rate

N. Gregory Mankiw

The responsiveness of consumer spending to the after-tax real interest rate has important implications for a variety of policy questions. If consumer spending is highly sensitive to the interest rate, then the impact of persistent government deficits on the capital stock is relatively small, since consumers will react to higher deficits by saving more. Understanding the determinants of consumer spending is also necessary before one can evaluate the economic effects of various tax provisions that directly affect the after-tax interest rate. Individual Retirement Accounts (IRAs), for example, serve to lower the tax on capital income and thus to raise the after-tax return to saving. The efficacy of such provisions depends on the responsiveness of consumer spending to the after-tax interest rate.

Despite the importance of this issue, there is little agreement among economists as to how much consumer spending is affected by the after-tax interest rate. Empirical studies have traditionally found that interest rates do not have an important impact on consumer spending. In the past few years, however, several economists have challenged this traditional view on both theoretical and empirical grounds. This paper (see Martin Feldstein, ed., *The Effects of Taxation on Capital Accumulation* [Chicago: University of Chicago Press, 1987]) examines several issues relevant to this debate.

Most previous studies of the interaction between interest rates and consumer spending have ignored, or treated unsatisfactorily, consumer spending on durable goods, such as automobiles, household equipment, and residential structures. This paper examines the interaction between

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consumer durable goods and consumer nondurable goods in determining the responsiveness of total expenditure to the after-tax interest rate. It shows how the introduction of durables as part of the consumer's decision affects the interest sensitivity of total spending.

Economic theory suggests that consumer spending on durable goods should be more sensitive to the after-tax interest rate than consumer spending on nondurable goods and services. The channel that makes durable goods more interest sensitive is called the "user cost effect," since the after-tax interest rate is one determinant of the implicit rental cost of consumer durable goods. This paper shows that the user cost of consumer durables indeed affects the composition of consumer spending between durable goods and nondurable goods.

This user cost effect may be one of the most important ways in which the after-tax interest rate affects consumer spending. Previous studies of consumer spending and interest rates have usually examined nondurable consumption in life-cycle models, which assume that individuals have the ability to borrow against their future income if they so choose. Some recent empirical work, however, has cast doubt on the life-cycle hypothesis and has suggested that borrowing constraints play an important role in determining consumer spending. If borrowing constraints are important, then the relevance of the previously studied channels through which the interest rate works is called into question. In contrast, even if an individual cannot borrow against his or her future income, the user cost effect on durable goods makes his or her total spending highly interest sensitive.

Another goal of this paper is to examine the response of various categories of consumer spending to the events of the 1980s. During the early 1980s, policy changes and economic events raised after-tax interest rates to extraordinarily high levels. First, anti-inflationary monetary policy and large government deficits worked to raise market interest rates. At a constant marginal tax rate of 30%, the expected after-tax real interest rate rose from −2.2% in the 1970s to +0.3% in the early 1980s. Second, reductions in marginal tax rates and increased availability of retirement accounts reduced the effective tax rate on capital income. Third, financial deregulation increased the availability of market interest rates to individuals. For these reasons, after-tax real interest rates were substantially higher in the early 1980s than in the 1970s, suggesting that this episode is an ideal natural experiment to examine the interest sensitivity of consumer spending.

This paper therefore compares consumer spending in the 1980s with the level of spending one would have expected from watching the events of the 1970s. It presents some evidence that the high after-tax real interest rates of the 1980s may have substantially reduced consumer spending on nondurable goods, services, durables, and residential construction. In particular, the evidence is consistent with the implication of economic theory that, because of the user cost effect, spending on consumer durables and residential construction is more highly interest sensitive than is spending on nondurables and services.

Overall, the results of this paper suggest that the after-tax interest rate is indeed an important determinant of consumer spending. Policies that directly alter the after-tax interest rate, such as the availability of IRAs or movements toward expenditure taxation more generally, are therefore likely to have an important impact on saving and thereby on capital formation. Moreover, these policies are also likely to substantially affect the composition of consumer spending between nondurable goods and durable goods.

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