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Inflation and Real Interest Rates on Assets with Different Risk Characteristics: Discussion

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DISCUSSION

WARD S. CURRAN*: In their efforts to measure ex ante real rates of interest economists have generally found, using short term U. S. Treasury Securities as the primary data base, that the ex ante real return on this type of financial instrument is not constant and is negatively correlated with both inflation and nominal interest rates. The results while often statistically imprecise and unstable over time (see, for example, Wilcox [5]) are not consistent with the Fisher hypothesis that nominal rates of interest respond on a one-for-one basis with expected inflation. Failure to confirm this hypothesis has led economists down various paths in search of explanations for the empirical results. The Mundell [3]-Tobin [4] effect, specifically, that the nominal rate will change by an amount

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smaller than the expected rate of inflation when money pays no interest and there is a real balance effect, has been a popular theme. More recently economists have begun to look at relations between inflation, interest rates, and real forces. (See, for example, Fama and Gibbons [2] and Wilcox [5].)

The Huizinga-Mishkin paper adds to and extends the empirical evidence on the negative relationship between expected inflation, nominal interest rates and *ex ante* real returns. The authors also deal with the troublesome issue of what appears to be a negative real rate of interest for a substantial period during the 1970s. Assuming a positive rate of time preference, such a phenomenon should be confined to a reasonably short period. If there were no holding costs for goods and if there were a riskless real return to asset-holders, negative *ex ante* real rates would not be expected at all. Using the new "rental equivalence" measure for the residential housing component of the CPI, the authors found that *ex ante* real returns are significantly negative only during the short period from late 1975 to 1977. The negative relationship between *ex ante* rates of inflation and nominal interest rates holds regardless of the index selected. I suspect that others employing somewhat different models but using the revised CPI will reach similar conclusions about the persistence of negative real rates in the 1970s.

Turning to the authors' analysis of longer term securities, a major finding is "that as the maturity length of the asset increases, and gets closer to its risk characteristic to capital, an increase in inflation is associated with an even larger decrease in the *ex ante* real return." In this instance the increase in the standard errors due to the forecast error of the nominal rate indicates that in spite of the negative signs of the coefficients, the null hypothesis is rejected less often for instruments of longer maturity. However, whether one uses the nominal three-month bill rate coefficient or the coefficient of inflation, the chi-square statistic suggests that the hypothesis that the real return on all financial assets analyzed is constant can be rejected. Consequently, given the econometrics employed, there is reason to suspect that the absence of statistical significance for the coefficients of longer term assets may indeed be a reflection of the low-power of the tests. The authors' findings are similar to others, specifically Fama and Schwert [2], but they reach a more pessimistic conclusion about financial assets as hedges against inflation.

A general finding of earlier studies has been the fact that while *ex ante* real rates on three-month Treasury bills have not been constant, their nominal returns have primarily reflected changes in expected inflation. As a result, Treasury bills have been a better hedge against inflation than other financial assets.

This relationship, however, may be changing. In what to this reviewer is the most intriguing section of the paper there is the very preliminary finding that in recent years *ex ante* real rates appear to be highly variable and uncorrelated with inflation. The authors date that change, albeit tentatively, from October 1979 when the Federal Reserve announced a shift away from an interest rate approach toward a monetary target approach.

Without deprecating the potential significance that a change in monetary policy, assuming that it is adhered to consistently, might have on the relationship between real rates, inflation, and nominal rates, it is important to keep in mind

that deregulation may also be bringing about significant structural shifts within the financial industry. What impact, if any, these changes may have on ex ante real rates of interest is a story yet to be told. Subsequent empirical work comparing results in the 1980s with earlier years cannot, it seems to me, overlook these institutional changes. In any case the authors' preliminary finding that since October 1979 nominal interest rates on three-month Treasury bills "no longer primarily indicate changes in expected inflation, but rather the movement of the ex ante real return" warrants careful scrutiny in future research.

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