Price Flexibility in the Friedman Proposal

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The following discussion arose out of a consideration of Friedman's recent proposal in the AER. 1/

This proposal, it was claimed, would, through both the monetary and fiscal framework and the achievement of "price flexibility," have desirable consequences for short-run economic stability.

We will discuss only one question in connection with the proposal, namely, given an initial disturbance and the operation of the proposal, what are the characteristics of the adjustment.

In the discussion of this question we will present several alternative models, none of which is claimed to be an exact representation of either the proposal or economic reality.

Definition of Variables.

All variables, except t, should be read as if they were written with the subscript $_t$.

Y = money income per unit of time

C = money consumption per unit of time

I = net private investment per unit of time, in money terms [ex post]

I' = net private investment per unit of time in money terms [ex ante]

1/ Friedman, M. "A Monetary and Fiscal Framework for Economic Stability" (AER, June 1948) Vol. XXXVIII, No. 3

G = constant government expenditures per unit of time exclusive of transfers, in money terms.

T = tax receipts per unit of time in money terms. This variable also includes the variable portion of expenditures, namely transfers, which we may regard as negative taxes.

M = the stock of money

P = index of the general level of prices

Model I.

I is exogenous. The variables Y, C, M, P and T are endogenous.

1.1 $$Y = C + I + G$$

1.2 $$\frac{C}{P} = \alpha_1 \frac{(Y-T)}{P} + \alpha_2 \frac{M}{P} + \alpha_0$$

1.3 $$\frac{dM}{dt} = G - T$$

1.4 $$T = \beta_1 Y^2 + \beta_2 Y + \beta_0$$

Alternative hypotheses regarding price flexibility:

1.5_a $$P = P_0 \quad \text{[a constant]}$$

1.5_b $$\frac{1}{P}\frac{dp}{dt} = \frac{\gamma}{Y}\frac{dy}{dt}$$

1.5_c $$\frac{1}{P}\frac{dp}{dt} = \gamma\frac{(Y-Y_{-1})}{Y_{-1}}$$

1.5d $$\frac{1}{P}\frac{dp}{dt} = \gamma\frac{(I'-I)}{I'}$$

The hypothesis expressed in Equation 1.5_d, together with Equation 1.6 below, enables us to regard I as endogenous and I" as exogenous.

The model under hypothesis 1.5d consists of Equations 1.1 to 1.4 and;

1.5d $$\frac{1}{P}\frac{dP}{dt} = \gamma\frac{(I'-I)}{I'}$$

1.6d $$\frac{I'-I}{P} = \delta_1\frac{(Y-T)}{P} + \delta_2 \frac{M}{P} + \delta_0$$