The Fiscal Theory of the Price Level

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The Fiscal Theory of the Price Level

"A prince, who should enact that a certain proportion of his taxes be paid in a paper money of a certain kind, might thereby give a certain value to this paper money."

Adam Smith, Wealth of Nations, Vol. I, Book II, Chapter II.

The Fiscal Theory of the Price Level

- Households:

$$B_0 = P_1(s_1 + c_1 - y_1) + \Delta M_1$$
$$B_{-1} = P_0(s_0 + c_0 - y_0) + Q_0 B_0 + \Delta M_0$$

  Equilibrium: $c = y$

- Real debt sales:

$$\frac{Q_0 B_0}{P_0} = \beta s_1$$

- Valuation Equation of Public Debt

$$\frac{B_0}{P_1} = s_1 \qquad\qquad \frac{B_{-1}}{P_0} = s_0 + \beta s_1$$

- Unexpected inflation

$$\frac{B_{-1}}{P_{-1}} \Delta E_0 \left(\frac{1}{1 + \pi_0} \right) = \Delta E_0 \left[s_0 + \beta s_1 \right]$$

Fiscal Theory and Monetary Policy

- Monetary Policy: change in B, no change in s
- Can we get $i_0 \uparrow$ and $P_0 \downarrow$?
- Price-level target P_1^*:

$$s_1 = \frac{B_0}{P_1^*} \qquad \frac{B_{-1}}{P_0} = s_0 + \beta \frac{B_0}{P_1^*}$$

- Long-term debt: $B^0_{-1} = P_0 s_0 + Q_0^1 (B_0^1 - B^2_{-1})$

$$\frac{B^0_{-1} + Q_0^1 B^2_{-1}}{P_0} = s_0 + \frac{Q_0^1 B_0^1}{P_0} = s_0 + \beta s_1$$

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