

Comments on **A case where Barro expectations are not rational** by Ekkehart Schlicht

The argument in this short paper is intriguing. I'm not convinced, however, that it is correct.

It is correct that the present value of households' disposable income (along the equilibrium trajectory) is given by equation (20):

$$Q = \frac{1+i}{i-g}(Y_0 - (1-\alpha)G_0)$$

This expression is increasing in α and it might seem that the government's debt policy affects the private sector's budget constraint. In Schlicht's words

"the present value of the households' lifetime income has increased by switching from a pay-as-you-go regime to a debt regime ... As the value of their lifetime income stream has increased, they could have afforded higher expenditure"

The problem with this statement is that the *disposable income only increases because households are saving* (buying government bonds). The debt trajectory – households' asset trajectory – is endogenous to the household maximization problem. Thus, the constraint is not

$$\sum (1+i)^{-t} c_t \leq \sum (1+i)^{-t} (Y_t - T_t + iD_t)$$

but

$$\sum (1+i)^{-t} c_t \leq \sum (1+i)^{-t} (Y_t - T_t)$$

If I am right, the problem can be illustrated with a simple two period example without government. Consider a household that receives income ω in the first period and allocates this income over two periods; the discount factor is β and the interest rate is i . Thus, the household solves

$$\max u(c_1) + \beta u(c_2)$$

st

$$c_1 + (1+i)^{-1}c_2 \leq \omega$$

The household's "disposable income" in the two periods are ω and $(1+i)(\omega - c_1)$. But the constraint on household optimization clearly is not given by

$$c_1 + (1+i)^{-1}c_2 \leq \omega + (1+i)^{-1}(1+i)(\omega - c_1) = 2\omega - c_1$$

Minor points

There are, I think, a couple of minor errors that don't affect the main argument.

1. The denominator on the LHS of (10) and (11) should be G_t
2. Equation (16) and the statement immediately following it seem incorrect.
The RHS of the equation should read

$$-\alpha \frac{G_0}{Y_0}$$