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Why Is Consumption Less Volatile Than Income? (p. 2)

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In This Issue

Although this issue of the *Quarterly Review* is short one article from the customary two, readers should not find it short on substance. The article "Why Is Consumption Less Volatile Than Income?" (p. 2) by Lawrence J. Christiano discusses modern theory and evidence of aggregate consumption behavior, describes a recently discovered puzzle concerning that behavior, and reports some original research to solve that puzzle.

For many years economists have used Milton Friedman's permanent income hypothesis to explain why U.S. data series show aggregate consumption to be smoother than aggregate income. According to this hypothesis, people's consumption today depends on their expected lifetime income. Since consumers were thought by economists to view some part of any unexpected current income change as transitory, the permanent income hypothesis was thought to suggest that consumers will not change their spending one-for-one with changes in their current income. Hence, consumption will be observed to be smoother than income.

Recently, Angus Deaton described an empirical puzzle relating to that explanation. Using a model of income which he judged to best fit the data, Deaton found that a change in current income actually leads to a more than one-for-one change in expected lifetime income. Thus, the permanent income hypothesis together with Deaton's model of income implies paradoxically that consumption should be more volatile than income.

Here Christiano embeds the permanent income hypothesis in an equilibrium growth model, so that he can carefully describe the implications of the theory and compare them to more general theories. After recounting the formal steps in Deaton's argument, Christiano raises separate empirical and theoretical considerations which could solve Deaton's puzzle. He first shows that the income process cannot be empirically estimated with enough precision to determine whether expected lifetime income responds more or less than one-for-one to changes in current income. That is, models of income which are statistically indistinguishable from Deaton's imply there is no puzzle.

Christiano then presents a theoretical argument which holds that underlying economic shocks which lead to changes in income will in general also lead to changes in interest rates. Thus, even though consumption could respond to income as Deaton says, the change in interest rates can dampen that effect. Thus, once again, consumption would be found to be less volatile than income. Christiano concludes by reporting some results from an empirical business cycle model he constructed which support his theoretical argument.

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