Taking Stock, Part II Week 5 LT: Consumption-Saving

Daniel Vernazza
d.r.vernazza@lse.ac.uk

Keynes ('36) vs. modern consumption theory (Friedman '57)

- Modern consumption theory: Permanent Income Hypothesis (PIH)

Why study consumption-saving?
It is important for:

- growth (saving in capital, R&D)
- fluctuations (boom -> save some of the extra income -> propagation)
- financial markets (facilitate the smoothing of consumption, see asset pricing lectures)

We have already seen the role of consumption-saving in economic growth and fluctuations when we studied the Ramsey and RBC models last term, respectively. In both cases, the representative consumer was assumed to behave according to the PIH and there were no capital market frictions. Recall, when we evaluated the canonical RBC model with US data, we found two big failures: the RBC model generated not enough volatility in total hours and too little volatility in consumption. We tried to correct for the former by modelling the movements into and out of employment. In this part of the course, we attempt to correct for the latter, that is, in the data consumption reacts too much to predictable movements in income compared to the PIH. This puzzle is known as "excess sensitivity" of consumption and there is a mass of supportive empirical evidence (see Flavin 1981, Hall and Mishkin 1982, Parker 1999, Souleles 1999, among others). One likely reason for "excess sensitivity" is the existence of capital market frictions and, in particular, liquidity constraints (see lecture note entitled "Excess Sensitivity, Precautionary Saving and Liquidity Constraints"). First we look at this in partial equilibrium (i.e. r exogenous). Later, we look at consumption in general equilibrium (i.e. endogenous r), see lecture note entitled "General Equilibrium Implications of Precautionary Saving/Liquidity Constraint Models with Heterogeneous Agents".

Class 1: two-period model of consumption-saving (individual and two-country models)
Class 2: small, open economy, two-period model with investment and government
Today: infinite horizon

In the first two classes we showed that it was permanent income that mattered for consumption in any period. Hence, permanent changes to income had larger effects on consumption in any one period than transitory changes to income (of equal magnitude). Recall the transitory change to disposable income considered in PS2 q.3. A rise in the lump-sum tax ($= g$) by one unit in period 1 led to a reduction in c_1 of less than one unit because c_2 also fell (consumption smoothing). If instead the tax increase was permanent, say g_1 and g_2 increased by one unit, and assuming $\beta(1+r) = 1$ we find that consumption in each period falls by one unit (i.e. the amount of the permanent tax increase). As we move to an infinite horizon, temporary shocks to income will have a yet smaller effect on consumption in any one period.