Friedman (1957) Concretely, a consumer born n periods before date T solves the problem

$$\mathbf{v}_{T-n} = \max \ \mathbb{E}_t \left[\sum_{i=0}^{n} \beta^i \mathrm{u}(\mathbf{c}_{t+i}) \right]$$

Appendices

A Perfect Foresight Liquidity Constrained Solution

Under perfect foresight in the presence of a liquidity constraint requiring $b \geq 0$, this appendix taxonomizes the varieties of the limiting consumption function $\grave{c}(m)$ that arise under various parametric conditions. Results are summarized in table **??**.

A.1 If GIC Fails

A consumer is 'growth patient' if the perfect foresight growth impatience condition fails (~~GIC~~, $1 < \text{Þ}/\Gamma$). Under ~~GIC~~ the constraint does not bind at the lowest feasible value of $m_t = 1$ because $1 < (\mathsf{R}\beta)^{1/\rho}/\Gamma$ implies that spending everything today (setting $c_t = m_t = 1$) produces lower marginal utility than is obtainable by reallocating a marginal unit of resources to the next period at return R:[1]

$$\begin{aligned} 1 &< (\mathsf{R}\beta)^{1/\rho}\Gamma^{-1} \\ 1 &< \mathsf{R}\beta\Gamma^{-\rho} \\ \mathrm{u}'(1) &< \mathsf{R}\beta\mathrm{u}'(\Gamma). \end{aligned}$$

Reference to (**??**)

References

FRIEDMAN, MILTON A. (1957): *A Theory of the Consumption Function.* Princeton University Press.

[1]The point at which the constraint would bind (if that point could be attained) is the $m = c$ for which $\mathrm{u}'(c_{\#}) = \mathsf{R}\beta\mathrm{u}'(\Gamma)$ which is $c_{\#} = \Gamma/(\mathsf{R}\beta)^{1/\rho}$ and the consumption function will be defined by $\grave{c}(m) = \min[m, c_{\#} + (m - c_{\#})\underline{\kappa}]$.