Table 1 Microeconomic Model Calibration

Calibrated Parameters			
Description	**Parameter**	**Value**	**Source**
Permanent Income Growth Factor	Γ	1.03	PSID: Carroll (1992)
Interest Factor	R	1.04	Conventional
Time Preference Factor	β	0.96	Conventional
Coefficient of Relative Risk Aversion	ρ	2	Conventional
Probability of Zero Income	$\wp$	0.005	PSID: Carroll (1992)
Std Dev of Log Permanent Shock	σ_{ψ}	0.1	PSID: Carroll (1992)
Std Dev of Log Transitory Shock	σ_{θ}	0.1	PSID: Carroll (1992)

Table 2 Model Characteristics Calculated from Parameters

Description	Symbol and Formula	Approximate Calculated Value
Finite Human Wealth Measure	$\mathcal{R}^{-1} \equiv \Gamma/\mathsf{R}$	0.990
PF Finite Value of Autarky Measure	$\beth \equiv \beta\Gamma^{1-\rho}$	0.932
Growth Compensated Permanent Shock	$\hat{\psi} \equiv (\mathbb{E}[\psi^{-1}])^{-1}$	0.990
Uncertainty-Adjusted Growth	$\hat{\Gamma} \equiv \Gamma\hat{\psi}$	1.020
Utility Compensated Permanent Shock	$\hat{\hat{\psi}} \equiv (\mathbb{E}_t[\psi^{1-\rho}])^{1/(1-\rho)}$	0.990
Utility Compensated Growth	$\hat{\hat{\Gamma}} \equiv \Gamma\hat{\hat{\psi}}$	1.020
Absolute Patience Factor	$\text{Þ} \equiv (\mathsf{R}\beta)^{1/\rho}$	0.999
Return Patience Factor	$\text{Þ}_{\mathsf{R}} \equiv \text{Þ}/\mathsf{R}$	0.961
PF Growth Patience Factor	$\text{Þ}_{\Gamma} \equiv \text{Þ}/\Gamma$	0.970
Growth Patience Factor	$\text{Þ}_{\hat{\Gamma}} \equiv \text{Þ}/\hat{\Gamma}$	0.980
Finite Value of Autarky Measure	$\hat{\hat{\beth}} \equiv \beta\Gamma^{1-\rho}\hat{\hat{\psi}}^{1-\rho}$	0.941

Table 3 Definitions and Comparisons of Conditions

Perfect Foresight Versions	Uncertainty Versions
Finite Human Wealth Condition (FHWC)	
$\Gamma/\mathsf{R} < 1$	$\Gamma/\mathsf{R} < 1$
The growth factor for permanent income Γ must be smaller than the discounting factor R for human wealth to be finite.	The model's risks are mean-preserving spreads, so the PDV of future income is unchanged by their introduction.
Absolute Impatience Condition (AIC)	
$\mathbf{Þ} < 1$	$\mathbf{Þ} < 1$
The unconstrained consumer is sufficiently impatient that the level of consumption will be declining over time:	*If wealth is large enough,* the *expectation* of consumption next period will be smaller than this period's consumption:
$c_{t+1} < c_t$	$\lim_{m_t \to \infty} \mathbb{E}_t[c_{t+1}] < c_t$
Return Impatience Conditions	
Return Impatience Condition (RIC)	Weak RIC (WRIC)
$\mathbf{Þ}/\mathsf{R} < 1$	$\wp^{1/\rho}\mathbf{Þ}/\mathsf{R} < 1$
The growth factor for consumption $\mathbf{Þ}$ must be smaller than the discounting factor R, so that the PDV of current and future consumption will be finite:	If the probability of the zero-income event is $\wp = 1$ then income is always zero and the condition becomes identical to the RIC. Otherwise, weaker.
$\mathsf{c}'(m) = 1 - \mathbf{Þ}/\mathsf{R} < 1$	$\mathsf{c}'(m) < 1 - \wp^{1/\rho}\mathbf{Þ}/\mathsf{R} < 1$
Growth Impatience Conditions	
PF-GIC	GIC
$\mathbf{Þ}/\Gamma < 1$	$\mathbf{Þ}\,\mathbb{E}[\psi^{-1}]/\Gamma < 1$
Guarantees that for an unconstrained consumer, the ratio of consumption to permanent income will fall over time. For a constrained consumer, guarantees the constraint will eventually be binding.	By Jensen's inequality, stronger than the PF-GIC. Ensures consumers will not expect to accumulate m unboundedly. $\lim_{m_t \to \infty} \mathbb{E}_t[m_{t+1}/m_t] = \mathbf{Þ}_{\hat{\Gamma}}$
Finite Value of Autarky Conditions	
PF-FVAC	FVAC
$\beta\Gamma^{1-\rho} < 1$ equivalently $\mathbf{Þ}/\Gamma < (\mathsf{R}/\Gamma)^{1/\rho}$	$\beta\Gamma^{1-\rho}\,\mathbb{E}[\psi^{1-\rho}] < 1$
The discounted utility of constrained consumers who spend their permanent income each period should be finite.	By Jensen's inequality, stronger than the PF-FVAC because for $\rho > 1$ and nondegenerate ψ, $\mathbb{E}[\psi^{1-\rho}] > 1$.

Table 4 Sufficient Conditions for Nondegenerate‡ Solution

Model	Conditions	Comments
PF Unconstrained	RIC, FHWC°	RIC $\Rightarrow \lvert \mathrm{v}(m) \rvert < \infty$; FHWC $\Rightarrow 0 < \lvert \mathrm{v}(m) \rvert$
		RIC prevents $\bar{\mathrm{c}}(m) = 0$
		FHWC prevents $\bar{\mathrm{c}}(m) = \infty$
PF Constrained	PF-GIC*	If RIC, $\lim_{m \to \infty} \mathring{c}(m) = \bar{c}(m), \lim_{m \to \infty} \mathring{\boldsymbol{\kappa}}(m) = \underline{\kappa}$
		If $\cancel{\text{RIC}}$, $\lim_{m \to \infty} \mathring{\boldsymbol{\kappa}}(m) = 0$
Buffer Stock Model	FVAC, WRIC	FHWC $\Rightarrow \lim_{m \to \infty} \mathring{c}(m) = \bar{c}(m), \lim_{m \to \infty} \mathring{\boldsymbol{\kappa}}(m) = \underline{\kappa}$
		$\cancel{\text{FHWC}}$+RIC $\Rightarrow \lim_{m \to \infty} \mathring{\boldsymbol{\kappa}}(m) = \underline{\kappa}$
		$\cancel{\text{FHWC}}$+$\cancel{\text{RIC}}$ $\Rightarrow \lim_{m \to \infty} \mathring{\boldsymbol{\kappa}}(m) = 0$
		GIC guarantees finite target wealth ratio
		FVAC is stronger than PF-FVAC
		WRIC is weaker than RIC

‡For feasible m, the limiting consumption function defines the unique value of c satisfying $0 < c < \infty$. °RIC, FHWC are necessary as well as sufficient. *Solution also exists for ~~PF-GIC~~ and RIC, but is identical to the unconstrained model's solution for feasible $m \geq 1$.