period 1 is

$$p_s \cdot x_s + \overbrace{\sum_{j \in J} \min \left\{ p_s \cdot A_{js}, p_s \cdot f_s \left( C_j \right) \right\} \psi_j}^{\text{Delivery on contract sales}}$$

$$\leq p_s \cdot \left( e_s + f_s \left( x_0 \right) \right) + \underbrace{\sum_{j \in J} \min \left\{ p_s \cdot A_{js}, p_s \cdot f_s \left( C_j \right) \right\} \varphi_j}_{\text{Collection on contract purchases}}.$$

The expenditure on goods $x_s$ and delivery on contract sales $\psi$ cannot exceed the income from the endowment $e_s$ and the left-over durable goods $f_s \left( x_0 \right)$, and the collection on contract purchases.

A key implication of the collateral equilibrium is that the market will be endogenously incomplete. Even if the set of possible contracts $J$ is large, if collateral is scarce, only a small subset of contracts will be traded in equilibrium. The key factor is the need for the seller of a contract to hold collateral. This is included in the marginal utility of selling a contract while it doesn't affect the marginal utility of buying a contract, creating a wedge between the marginal utility of the buyer and the seller. Therefore all contracts where, across agents, the highest marginal utility of buying the contract is less than the lowest marginal utility of selling the contract will not be traded. In addition, this implies that contracts where holding the collateral is of value to the agent selling the contract are more likely to be traded. Finally, due to the fact that the delivery on a contract is the minimum of the amount promised and the value of the collateral, it is better to have a high correlation between the promised payment and the value of the collateral.

**Basic Example**  To illustrate some of the implications of the endogenous collateral requirement we now present an example from Geanakoplos (2003, 2010). The example restricts the set $J$ of available financial contracts and only allows standard borrowing contracts, highlighting the effects of equilibrium leverage on asset prices in a static and dynamic setting.[14]

First consider a static setting with two periods $t = 0, 1$, two states in period 1 $s = U, D$, two goods $\ell = C, Y$. While $C$ is a storable consumption good, $Y$ is an investment good (asset) paying 1 and 0.2 units of the consumption good in states $U$

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[14]It should be pointed out though that this somewhat departs from the spirit of the general collateral equilibrium concept since it exogenously imposes market incompleteness.