and D respectively. Agents are risk neutral, derive utility only from the consumption good and have *non-common priors*: Agent h has belief $\Pr[s = U] = h$ and agents are uniformly distributed on $[0, 1]$. Agents with higher h are therefore more optimistic about the asset than agents with lower h. This implies that there is a rational for trade since optimistic agents are natural buyers of the asset while pessimists are natural sellers.

Every agent has an endowment of one unit of the consumption good and one unit of the asset in period 0 and no endowments in period 1. The consumption good is the numeraire and the asset's price in period 0 is p.[15] Given the heterogeneous beliefs, the population is endogenously divided into buyers and sellers of the asset. For an asset price p, the marginal buyer is given by the agent h who values the asset exactly at p, i.e.

$$h + (1 - h)\,0.2 = p.$$

In the baseline case *without any financial contracts*, market clearing requires that the buyers – the top $1 - h$ agents – spend their entire endowment of the consumption good on the assets purchased from the bottom h agents:

$$1 - h = ph$$

Combining the two equations we get

$$h = 0.60, \quad p = 0.68$$

So the 40% most optimistic agents buy the assets of the 60% more pessimistic agents at a price of 0.68. If the optimistic agents could borrow in period 0 by promising some consumption good in period 1 they could afford to buy more of the asset in period 0. However, this promise has to be collateralized by the asset itself.

Now consider the case *with a financial contract*. The only type of contract allowed is a standard borrowing contract promising the same amount of the consumption good in both states in period 1. There are still many different borrowing contracts possible, varying in their promised interest rates and levels of collateralization. In the equilbrium of this simple example, only fully collateralized debt will be traded. The intuition is as follows: First, overcollateralization is wasteful and will therefore not happen. Second,

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[15]Note that like the consumption good, the asset itself – since it is a physical good – can only be held in positive quantities. This "short-sale constraint" makes it a good example for housing, but less directly applicable to financial assets.