What should be the objective of the corporation? With incomplete markets, firm owners may disagree on the answer to this question (Magill and Quinzii 1996). In the case of partnerships where firm shares are not actively traded, Drèze (1974) proposed to use transfer payments among partners to reach unanimity. An equivalent formulation is as follows: each partner's present-value vector is weighted by her initial investment, leading to a well-defined firm objective function.

For corporations with actively traded shares, a new question arises: for whom should the firm be valued? Buyers, sellers, owners, or some other group? Grossman and Hart (1979) make a reasonable and now well-accepted assumption, which they call competitive price perceptions: agents use their own present value vector to value future income streams. Under this assumption, owners value the firm and the analysis collapses to that of the simpler partnership.

Consistent with this approach, the objective of the firm is to maximize the average of the shareholder's valuation, weighted not only by current ownership but also marginal utilities of owners:

$$\sum_h \int_\theta \int_b \theta \lambda_t(\theta, b, h)[d_t + (1 - \phi \Delta_t^-(\theta, b, h))q_t] d\Gamma(\theta, b, h)$$

subject to:

$$\begin{aligned} q_t &= \mathcal{L}_t^d d_{t+1} + \mathcal{L}_t^d (1 - \Phi_t) q_{t+1}, \\ d_t &= F(k_t, k_{t+1}), \end{aligned}$$

where $\Gamma(\theta, b, h)$ denotes the cross-sectional distribution over portfolio holdings and employment status. We next define:

$$\overline{\Phi}_t = \frac{\phi \sum_h \int_\theta \int_b \theta \lambda_t(\theta, b, h) \Delta_t^-(\theta, b, h) d\Gamma(\theta, b, h)}{\sum_h \int_\theta \int_b \theta \lambda_t(\theta, b, h) d\Gamma(\theta, b, h)}$$

which can be used to rewrite the firm problem:

$$\max_{\{k_{t+s}\}_{s \geq 1}} d_t + \frac{1 - \overline{\Phi}_t}{1 - \Phi_{t-1}} \sum_{s=1}^{\infty} \prod_{z=0}^{s-1} ((1 - \Phi_{t+z-1}) \mathcal{L}_{t+z}^d) d_{t+s}$$

subject to:

$$d_t = F(k_t, k_{t+1})$$

The variable $\overline{\Phi}_t$ is agreed upon by owners to be used in the firm valuation, while the variable Φ_t is used by buyers for firm valuation. When $\phi = 0$, the firm ceases to be a risky venture so there is no disagreement among agents on its valuation, even with incomplete markets. When $\phi > 0$, the owner and buyer valuations need not coincide. Recall the definition of Φ_t:

$$\Phi_t = \frac{\phi E[\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')\Delta^-_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')]}{E[\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')]}$$

which does not depend on (θ, b, h) for buyers. Focusing on steady states where $\overline{\Phi}_t = \overline{\Phi}$ and $\Phi_t = \Phi$, Φ can be written:

$$\Phi = \frac{\phi \sum_h \int_\theta \int_b \Theta_{t+1}\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')\Delta^-_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')1^{buyer} dF(h'|h)d\Gamma(\theta, b, h)}{\sum_h \int_\theta \int_b \Theta_{t+1}\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')1^{buyer} dF(h'|h)d\Gamma(\theta, b, h)}$$

where 1^{buyer} denotes the indicator function. $\overline{\Phi}$ can be written:

$$\overline{\Phi} = \frac{\phi \sum_h \int_\theta \int_b \Theta_{t+1}\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h')\Delta^-_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h') dF(h'|h)d\Gamma(\theta, b, h)}{\sum_h \int_\theta \int_b \Theta_{t+1}\lambda_{t+1}(\Theta_{t+1}, \mathcal{B}_{t+1}, h') dF(h'|h)d\Gamma(\theta, b, h)}$$

The intuition is as follows. If buyers tend to buy tomorrow, then $\Phi < \overline{\Phi}$ and the firm faces a problem of present bias. The firm is consistently undervalued by current owners, who value d_t disproportionately more than the risky continuation value $(1 - \phi\Delta^-_t)q_t$ because of a high likelihood of sale tomorrow. If buyers tend to sell tomorrow, then $\Phi > \overline{\Phi}$ and the firm faces a problem of future bias. The firm is overvalued by current owners, who are unlikely to have to sell tomorrow and hence the risky continuation value $(1 - \phi\Delta^-_t)q_t$ receives disproportionately more weight than d_t. The transition matrix over the income process h is one tool to calibrate this persistence, and hence the difference $(\Phi - \overline{\Phi})$.