their risk exposure after losses so fast that they actually never default. In other words, there is no credit risk in the baseline model. Beyond the fundamental risk $\sigma$, all of the endogenous risk $\sigma^q$ is purely *liquidity risk*.

Note that the trade-off between profit and risk is given by the aggregate leverage ratio in equilibrium. Experts also face some (indirect) contagion risk through common exposure to shocks even though different experts do not have any direct contractual links with each other. These spillover effects are the source of *systemic risk* in BruSan10.

Finally, experts also have to decide when to consume (or pay out bonuses). This is an endogenous decision in BruSan10 and risk-neutral experts only consume when the marginal value of an extra dollar $\theta_t$ within the firm equals one.

Put together, the law of motion of expert net worth is

$$dn_t = rn_t\, dt + (k_t q_t)[(E_t[r_t^k] - r)\, dt + \varphi_t(\sigma + \sigma_t^q)\, dZ_t] - dc_t,$$

where $dc_t$ is experts' consumption flow and $E_t[r_t^k]$ is experts' expected return on capital reflecting output after investment and capital gains.

Formally, the solution of experts' dynamic problem is given by the Bellman equation

$$\rho \theta_t n_t dt = \max_{k_t, dc_t} E_t[dc_t + d(\theta_t n_t)],$$

where $\theta_t$ is the slope of the linear value function of experts – i.e. the marginal value of an extra dollar with the experts. Importantly $\theta_t$ depends on the state of the economy.

The model is set up in such a way that all variables are scale-invariant w.r.t. aggregate capital level $K_t$ and dynamics are given by the single state variable $\eta_t$, the total net worth of expert sector $N_t$ divided by total capital $K_t$. The price of capital $q(\eta)$ is increasing in $\eta$, while the marginal value of an extra dollar held by the experts $\theta(\eta)$ declines in $\eta$. For sufficiently high values of $\eta$, $\theta = 1$, an extra dollar of more expert net worth is just worth one dollar. At this point the less patient experts start paying out bonus payments, which they consume. Consequently, their net worth drops by the amount of consumption. In other words, $\eta$ slowly drifts up towards the "stochastic steady state" until it reaches the reflecting barrier $\eta^*$. At this point, subsequent positive shocks do not lead to an increase in net worth as they are consumed away, while negative shock lead to a reduction in experts' net worth.

*Liquidity mismatch.* The model also highlights the interaction between various liquidity concepts mentioned in the introduction. Note that experts' debt funding is instan-