present framework it is natural to proxy size with the amount of sales, so that the debt-to-output ratio is our measure of leverage (see also Faini and De Melo, 1990). We therefore presume, ceteris paribus, that the cost of external funds is lower the higher revenues are. As for output production, we assume that the cost of adjusting production levels is increasing and convex in the rate of change of output, i.e. increasing in today's production but negatively related to yesterday's output level. Finally, as usual, variable costs are increasing both in output and in input prices.

Let us first consider the optimality condition for debt which is:

$$1 - E_t \beta_{t,t+1} \left\{ 1 + \left(1 - \tau_{t+1} \right) \left[i_{t+1} + \frac{\partial \tilde{a}(t+1)}{\partial b_t} b_t \right] \right\} = 0 \tag{3}$$

This equation is an arbitrage condition which yields an interior solution for debt. The optimal stock of debt is given by the level at which the after tax rate of return on assets equals the interest rate on debt.[4] This equality holds in expectation for all periods from t onwards.[5]

The optimality condition for the price control is quite a lengthy expression, which can be simplified by first introducing the following variable:

$$\mu_t = \frac{\partial D(t)}{\partial p_t} + \frac{\partial D(t)}{\partial v_t} \frac{\partial v_t}{\partial p_t} \tag{4}$$

Let v_t represent the vector of the prices charged by the other firms in the industry. The variable μ_t summarizes the impact of a price change on our firm's production level and is given by the sum of two terms: the first is the direct effect, while the second one is the strategic effect. While the former effect is always negative, we take the latter to be positive. This assumption implies that consumers view the products in the industry as substitutes (so that $\partial D(t) / \partial v_t > 0$) and that firms in the industry treat prices as strategic

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[4] The discount rate in (3) is equal to $\beta_{t,t+1} = (1 + r_{t+1})^{-1}$, where r is the (exogenously given) before tax nominal rate of return on firm's assets.

[5] Although assumed to hold for the current and all future periods, the optimality condition (3) will not be exploited in the econometric analysis below.