

smoothing motive (Ramey, 1991; Galeotti, Guiso, Sack, and Schiantarelli, 1996, among others).

Because of capital markets imperfections, we assume that the cost of external funds is higher than that of internally generated funds. We model this aspect through an increasing cost function of external debt (see, for instance, Bond and Meghir, 1994). Debt is taken to be primarily given by bank credit, the major source of both short and long term financing for Italian firms. In addition, we will assume that the firm does not raise funds through equity issues, another assumption which is quite plausible for the Italian case over our sample period.

The firm's demand for her product can be represented as follows:

$$q_t = D(p_t, v_t) \tag{1}$$

where q is the quantity of output produced and p is the corresponding price while the variable v represents demand shifters which include the price of rivals' product.

The firm chooses price and debt policies in order to maximize the following objective:

$$E_t \sum_{s=t}^{\infty} \beta_{t,s} \left\{ (1 - \tau_s) \left[p_s D(p_s, v_s) - c(w_s, D(p_s, v_s)) - h(D(p_s, v_s), D(p_{s-1}, v_{s-1})) \right] - i(b_{s-1}, p_{s-1} D(p_{s-1}, v_{s-1})) b_{s-1} \right\} + (b_s - b_{s-1}) \tag{2}$$

where E_t is the expectation operator, $\beta_{t,s}$ is the discount factor between periods t and s , τ is the corporate income tax rate, $c(\cdot)$ is the firm's minimum variable cost function which depends, besides output, upon the price (vector) of variable inputs w , $h(\cdot)$ is the adjustment cost function for output, and $i(\cdot)$ is the cost of external debt function which depends upon the value of production and upon the (end of period) stock of outstanding debt b .

Note that the product $i(\cdot)b$ is equal to the amount of interest payments due on external funds. We presume that, because of the existence of imperfect capital markets, the interest rate depends positively upon the end of period debt-to-size ratio. In the