



Figure 5. The borrower defaults when $\theta_1 V_1$ falls short of the notional debt $1 + r$. The effect of a currency appreciation is to shift the outcome density upward, lowering the default probability.

2.2.1 Loan demand

Each region has a continuum of potential borrowers. Borrowers are penniless risk-neutral entrepreneurs with access to a project that needs 1 dollar of fixed investment and one unit of labour input. Entrepreneurs must borrow from banks to finance the initial 1 dollar investment. The disutility of effort is distributed in the population according to the cumulative distribution function $H(\cdot)$ with support on $[0, \infty)$. Loans are granted at date 0, and the project realisation and repayment is due at date 1.

The entrepreneurs bear currency risk. The dollar value of the project depends on the exchange rate vis-à-vis the US dollar. Figure 5 depicts the outcome density of the borrower's project. Denote by θ_t the value of the local currency with respect to the US dollar, $t \in \{0, 1\}$, where an increase in θ_t denotes the *appreciation* of local currency. Let $\bar{\theta}_1$ be the date 0 expected value of θ_1 . The dollar value of borrower j 's project at date 1 follows the Merton (1974) model of credit risk, and is the random variable:

$$\theta_1 V_1 = \exp \left\{ \mu(\bar{\theta}_1) - \frac{s^2}{2} + sW_j \right\} \quad (1)$$

where W_j is a standard normal, $\mu(\cdot)$ is an increasing function and s is a constant. Since