

- Any f between 100 M. and 140 M. forces the borrower into liquidation when the project returns 100 M. and is paid in full when the project returns 140 M..
- This gives the lender an expected return of, because nothing is received when liquidation.
- Solving for the minimum value of f , $f = \dots\dots\dots$

$$\text{Let } V = \begin{cases} H & \text{million with probability } (1-\pi), \\ L & \text{million with probability } \pi. \end{cases}$$

The lender would receive expected payment of

$$(1 - \pi)f + \pi(0) = (1 - \pi)f \geq (1 + r) \times \text{principal amount.}$$

$$\text{The minimum value of } f = \frac{(1 + r) \times \text{the principal amount}}{(1 - \pi)}$$