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Expected loan rates

$$\begin{split} \blacktriangleright & \text{ E}\left[1+r_L^1\right] = (1+r_D)\left(\frac{1}{\pi} + \frac{\sigma_1^2}{\pi^3}\right) - \frac{1-2\operatorname{Prob}\left(\hat{r}_L^2 < r_L^2\right)\left(1-\operatorname{Prob}\left(\hat{r}_L^2 < r_L^2\right)\right)}{\frac{\partial \operatorname{Prob}\left(\hat{r}_L^2 \le r_L^2\right)}{\partial \left(1+r_L^2\right)}} \\ & \text{ E}\left[1+r_L^2\right] = \frac{1+r_D}{\pi}\left(1+\frac{\sigma_2^2}{\pi^2}\right) + \frac{1-\operatorname{Prob}\left(\hat{r}_L^2 \le r_L^2\right)}{\partial \operatorname{Prob}\left(\hat{r}_L^2 \le r_L^2\right)} \end{split}$$

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