



Chapter 7.3.4

Security flipping

Inducing trading in the security

- ▶ Investment banks do not only earn underwriting fees, but also benefit from trading the security
- ▶ Many investors allocated the security will trade through the investment bank, earning them brokerage commission
- ▶ Investment banks have an incentive to induce more trading and earn additional revenue

Excess demand

- ▶ Assume that an issue is underpriced and the demand is Q , while the number of securities issued is $\hat{Q} < Q$
- ▶ Rationing is required and a fraction $\gamma = \frac{\hat{Q}}{Q}$ is allocated, the unmet demand is $(1 - \gamma) Q$
- ▶ The number of securities issued, \hat{Q} , is also the demand in equilibrium at price S^*

Investment bank profits

- ▶ Investment banks charge an underwriting fee on the proceeds of the issue and a brokerage fee on any trading activity
- ▶ Profits: $\Pi_B = fS\hat{Q} + \hat{f}(1 - \gamma)\hat{Q}S^*$
- ▶ The demand for security allocation is sensitive to the offer price and has elasticity $\eta = \frac{\partial Q}{\partial S} \frac{S}{Q} < 0$
- ▶ The optimal offer price maximizes investment bank profits, $\frac{\partial \Pi_B}{\partial S} = 0$, which solves for $S = -\frac{\gamma \hat{f} \eta}{f} S^*$

Underpricing

- ▶ We have underpricing if $S < S^*$, or $-\frac{\gamma\lambda\eta}{f} < 1$, or $\eta > -\frac{f}{\gamma\hat{f}}$
- ▶ If the elasticity is sufficiently small (in absolute terms), issues are underpriced
- ▶ The investment bank balances the lower income from the underwriting fee against the brokerage income
- ▶ A small elasticity ensures that the trading demand for the security is not reduced too much as the price increases to its equilibrium, offsetting the loss in underwriting fees

Summary

- ▶ Investment banks will underprice issues to generate demand from traders not allocated the security but valuing it above the offer price
- ▶ Those allocated the security will include some who value it below the equilibrium price and sell
- ▶ This trading generates additional revenue for the investment bank, at the expense of the issuer receiving lower proceeds



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