Funding Start-Ups

In this game, you will be playing the roles of entrepreneurs looking for VC funding. As an entrepreneur, you currently have a small company, a team, and a business plan. It is a closely held company—you own 100% of it. If you are not funded by a VC, the NPV of your company is $10 million. However, you have a business idea for expansion. This idea produces an additional net present value of between $1 million and $100 million equally likely to be any of these values. On your value sheet (emailed) you are informed about the value of the business expansion. This is your private information—do not share it with anyone. To fund this expansion, you will be bidding against one other entrepreneur for the services of a VC. Your job is to maximize the value of the company to you after paying the VC.

The VC is faced with two competing offers from rival entrepreneurs. Both rivals have teams, business plans, and existing firms with known NPV of $10 million. However, both require funding from you to expand. The difficulty is that capital and management constraints allow you to fund only one of these entrepreneurs. In addition, while on paper each of the entrepreneurs has a business idea that enhances the NPV of the company by $50 million on average, there is considerable uncertainty about the exact value of the each entrepreneur’s expansion plans. As noted above, the incremental value is anywhere from $1 million to $100 million and is equally likely to be any of these values. As a VC, your job is to maximize your profits.

We will play several variations of this game, in each variation, you will be matched with different entrepreneurs.

1. The services of the VC are given to the highest bidder in exchange for a promise of cash going forward according to a second-price (Vickrey) sealed bid auction.

2. The services of the VC are given to the highest bidder in exchange for a promise of cash going forward according to a first price sealed bid auction.

3. Bidders pledge shares in their company in exchange for the assets. Whichever bidder offers a greater fraction of their company wins the item, but pays an amount (in shares) equal to the pledge of the losing bidder. I.e. a second price auction, but you bid a % of your company.

4. Bidders pledge shares in their company in exchange for the assets. Whichever bidder offers a greater fraction of their company wins the item, and pays their bid. I.e. a first price auction, but you bid a % of your company.

Your profits are your new NPV less your bid in the cash auctions. In the shares auction, your profit is the fraction of NPV you retain control of.