For a startup company, estimating the value of the owner’s invested capital (the number of shares times the value per share) is difficult because most new companies are not publicly traded. To estimate the value of the owner’s investment, we must know the company’s average cost of capital. Estimating the average cost of capital requires that we know the company’s total value. However, we cannot estimate total value without knowing the average cost of capital. In this paper, we develop an Excel-based algorithm for resolving this cost-value circularity issue. We include an example valuation.