Human Capitalists
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Discussants: Giovanni L. Violante, Eric Zwick

Robert Hall and Eric Swanson raised concerns about the measurement of the value of grants. In particular, Robert Hall noted that if there is high employee turnover, many shares granted to workers will fail to vest as a worker moves on before the end of the vesting period. The authors argued that their main measure, stocks reserved for compensation, was likely to be an underestimate of the expected value of grants that will vest. While the SEC requires reporting of grants, firms are incentivized to minimize the number of shares reserved due to the dilution effect, where issuing equity to workers reduces the value of other shares as they are now a claim to a smaller portion of the firm. The authors also noted that they find a strong correlation between reserving of shares with repurchases and the difference between earnings per diluted and non-diluted shares. Eric Swanson raised concerns about the use of the Black-Scholes formula to value grants given companies sometimes adjust the strike price if their stock price falls to ensure the employee gains some compensation from the option. This feature might make the Black-Scholes value too low compared to the actual value to the worker. The authors responded that all their results hold in specifications that do not use grant values calculated using Black-Scholes.

Robert Hall asked about the effect of equity compensation for private companies and venture capital backed firms as workers are often not able to sell any shares until either the company is sold or goes public. The authors responded by highlighting that most of the companies in their sample are large public companies which have been public for several decades. They hypothesized that the share of compensation that takes the form of grants would be higher in private and venture capital owned firms based on the evidence Eric Zwick provided in his discussion.

Eric Zwick asked if household surveys could potentially be used to measure income from stock options, given how income inequality has tracked consumption inequality in these surveys. They could also resolve some of the issues about measurement raised by others in the discussion. The authors agreed that using household surveys could be a future avenue of research, however, they raised two potential issues. The first is that the timing of when the grants would be considered income as households might only report options when exercised and not when granted. The second is that households may not consider stock options when asked about income and may use their W2 when asked about past years income. The authors then suggested that adding a specific question about stock options to household surveys may overcome these limitations.

Guido Menzio asked about the motivation of firms to pay workers using stock options rather than wages as the model in the paper did not contain a motivation for using it. He raised a potential concern with the empirical specification that there may be correlation between firm or worker specific factors and the choice to use equity-based compensation. The authors responded by noting some of the reasons that firms use equity-based compensation: tax advantages, retention, and boosting short-term profits as the grants are not immediately expensed. They explained that they were agnostic about the relative importance of these reasons in their empirical specification and try to control for correlations between firm and worker specific factors in their firm level regressions.

Guido Menzio also raised the point that equity-based compensation may have implications for inequality as workers who live paycheck to paycheck cannot afford to receive some of their
compensation in tax advantaged stock options. The authors agreed that equity compensation is better for those in higher tax brackets as well as those who can afford to take on risk in their compensation.