1. INTRODUCTION

- Little is known about how financing terms evolve over the life of a start-up business.
- Little evidence on how often renegotiation happens and what are the changes in equity contracts upon renegotiation.
- The study of the evolution of difference in terms offered to common stock and that to the most recent stock has great implication on the valuation of start-up businesses.

2. RESEARCH QUESTIONS

- This paper studies the evolution patterns of financing terms in three directions.
  i. If terms offered to new investors become more investor-friendly over time?
  ii. How often renegotiation happens, and if it happens, how often do terms become more investor-friendly?
  iii. Whether later rounds always have better terms
- Furthermore, we examine the possible factors that might influence the evolution patterns observed.

3. DATA

- We extract financing terms from the legal document Certificates of Incorporation (Cols), issued by companies registered in the U.S.A. at each funding round. We use funding rounds data from Pitchbook and CrunchBase.
- In the first stage of our research, we randomly selected 300 companies whose first equity rounds were launched between 1st January 2010 to 31st December 2012. This sample covers a wide range of start-ups and growth companies.
- We create a panel of key rights of different classes of shares issued by companies at different rounds.

4. METHODOLOGY

- For each company and each key term, we can get a matrix to show the evolution of this right across rounds. Below is the matrix of votes number per share of stock have.
- We analyse data in the panel from three perspectives.
  i. Diagonally how the each of the rights offered to investors in the newest round evolve across rounds;
  ii. Vertically the renegotiation issue
  iii. Horizontally the distribution of rights among investors at every round
- Conduct regression analysis to examine what factors determine how contractual terms evolve.
- One of the key factors is headroom, the measure we develop as a proxy for the company’s financial flexibility and overall performance. The formula of headroom of \( t^{th} \) round is

\[
J = \frac{1 - ALP + ACD}{V_i}
\]

Where \( ALP \) accumulate liquidation preference for preferred stock immediately after \( t^{th} \) round; \( ACD \) accumulate unpaid contractual dividends immediately after \( t^{th} \) round; \( V_i \) Value of the company immediately after \( t^{th} \) round

i. If the headroom equals to 30%, it means 70% of the company value will be used to meet the liquidation claims of preferred stock holders.
ii. Using this formula, evolution of headroom across rounds can be obtained.

5. RESULTS

- **Diagonal Analysis**: over time, terms offered to attract new investors do not become more investor-friendly. In other words, the marginal seniority needed to attract new investors declines over time.
- **Vertical Analysis**: Renegotiation happens more often for stocks offered in earlier rounds. Conditional on renegotiation happening, cashflow rights are most likely to get worse while control rights such as votes per share get better in a majority of rounds.
- **Horizontal Analysis**: the preferred stock issued in the most recent round does not necessarily have better terms than that issued in earlier rounds or common stock, at least not in every right.
- **Ownership Evolution**: to attract investors, the % of the company owned by common stock holders drops dramatically in the first two rounds; however, the dilution is not as severe in later rounds.
- **Preliminary Regression Analysis**: the following table displays regression result for the possible determinants of ownership of common stock and latest series.

6. CONCLUSION

- This paper is the first to shed light on the evolution of the financial contracts used to raise equity capital for new ventures.
- This paper is currently still ongoing. Future work will focus on including companies whose first equity round was launched before 2010 and after 2012 to examine the effect of macro conditions on the evolution of financing terms. We will also adjust methodology to tackle potential endogeneity due to headroom and lagged dependent variable.