YUAN SHI

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BACKGROUND

I am a Ph.D. candidate in finance at Ross school of business. My research interest focuses on corporate finance and big data. Particularly, I am interested in answering how big data and algorithms affect firm valuation and manager decisions. I also use alternative data to answer crucial corporate finance questions not answered in the literature due to data constraints.

I have taken finance classes (corporate finance, asset pricing, microstructure), econ classes (first-year microeconomics, first-year macroeconomics, first-year econometrics, advanced applied micro econometrics, industrial organization)

WORKING PAPER

Bankruptcy liquidation recovery: evidence from judiciary liquidation auction
I study the bankruptcy liquidation market by constructing a new judiciary bankruptcy auction data and structurally estimating an auction model. The average recovery rate is 85%, and the level is similar across tangible and intangible assets. There is a 13.5% welfare loss from selling assets whose going concern value is greater than the buyer's valuation. However, given the liquidation decision, selling the asset but not transferring it to the creditor creates an economy-wide 8% of welfare gain. Buyers only capture 0.7% of the surplus in the auction from their information advantage on their private value in an English auction. Information friction about the asset quality and fire sale distress both contribute to suboptimal transaction results. Overall, my results point to the misallocation of assets, instead of limited competition among bidders, as the main driver of the liquidation discount.

Data is an asset - estimating the market value of corporate data
The 21st century has witnessed the emergence of data-producing companies. Despite their large presence, the current accounting policy makes it hard to evaluate the value of the corporate data. I constructed a novel dataset from 10-Q files and website traffic trackings to measure the size of corporate data. Using the exogenous shock of a competitor's data breach event as an instrument, I found that a 1% increase in the corporate data on average leads to a 1% increase in firm valuation. To determine how data contributes to firm valuation, I text-analyzed the business description of the 10-K file to determine if the firm's dataset is produced within or outside of the firm by customers. In firms where data is produced within the firm, data contributes to firm value by directly boosting revenue through data sales. For firms where data is produced by their customers, data increases the firm productivity through the information channel and thus increases firm valuation.

WORK IN PROGRESS

How do investors learn about the quality of distressed assets? A text-based analysis
I study how distressed investors learn about the quality of bankruptcy assets. I scraped the judiciary bankruptcy auction data that covers 210,000 auctions and text analyzed the auction page, asset appraisal report, and bankruptcy court document. Investors rely on

hard information (appraisal price) and soft information (asset description and offline inspection) to form their beliefs about the asset's value. Information disclosure encourages auction participation and reduces disagreement among investors. In valuing the asset, the investors trust the current market price more than the historical asset-acquiring costs or asset-generated revenue.

Does algorithmic trading affect corporate decisions through an information channel? Algorithmic trading in corporate securities impacts informativeness through different channels and horizons. Does such influence affect real corporate decision? Using market order history as a proxy for algorithmic trading behavior, I found that firms targeted more by algorithmic trading have stock market prices better predicting future earnings for up to 5 years (the capital market price is more informative). In response, managers' investment decisions follow more tightly with the stock market price (managers learn from the capital market). Overall, my analysis suggests that algorithmic trading facilitates information transmission from the investors to the manager.

COMMITTEE

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