

Tania Babina

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ACADEMIC POSITIONS

Assistant Professor, Columbia Business School, Columbia University
Division of Finance

July 2016

EDUCATION

University of North Carolina, Chapel Hill
Ph.D. in Finance, Kenan-Flagler Business School

2011 to 2016

M.Sc. Finance, the University of Alabama

2008

B.A. Economics, National Technical University KhPI, Ukraine, Summa Cum Laude

2005

RESEARCH INTERESTS

Empirical Corporate Finance, Entrepreneurship, Innovation, Labor and Finance

PUBLISHED PAPERS (* means presented by co-author)

Destructive Creation at Work: How Financial Distress Spurs Entrepreneurship, *the Review of Financial Studies*, 2020

- AFA 2018; Tel Aviv Finance Conference 2017; WFA 2017; Economics of Entrepreneurship and Innovation Conference 2017; Mitsui Labor and Finance Symposium 2017; Finance, Organizations & Markets Conference (FOM); Columbia Macro Lunch; EFA (Oslo), Annual Meetings of the Society of Labor Economics (Seattle); Labor and Finance Group meeting (Austin); selected for presentation at the Colorado Finance Summit/PhD session; Carnegie-Mellon University; Berkeley; Columbia; Cornell; Federal Reserve Board, Georgetown; Ohio State; University of Colorado; University of Maryland; University of Minnesota; University of North Carolina; University of Texas–Dallas; University of Toronto

Using U.S. Census firm-worker data, I document that firms' financial distress has an economically important effect on employee departures to entrepreneurship. The impact is amplified in the high-tech and service sectors, where employees are key assets. In states with enforceable noncompete contracts, the effect is mitigated. Compared to typical entrepreneurs, distress-driven entrepreneurs are high-wage workers who found better firms, as measured by jobs, pay, and survival. Startup jobs compensate for 33% of job losses at the constrained incumbents. Overall, the financial inability of incumbent firms to pursue productive opportunities increases the reallocation of economic activity into new firms.

Heterogeneous Taxes and Limited Risk Sharing: Evidence from Municipal Bonds, *the Review of Financial Studies*, 2021, with Pab Jotikasthira (SMU), Chris Lundblad (UNC), Tarun Ramadorai (Imperial College)

- EFA 2017*; AFA 2016*; Fourth Annual Municipal Finance Conference*; Adam Smith Workshops in Asset Pricing and Corporate Finance*; SFS Finance Cavalcade*
- James A. Lebenthal Memorial Prize for Best Paper at the Fourth Annual Municipal Finance Conference

We evaluate the impacts of tax policy on asset returns using the U.S. municipal bond market. In theory, tax-induced ownership segmentation limits risk-sharing, creating downward-sloping regions of the aggregate demand curve for the asset. In the data, cross-state variation in tax privilege policies predicts differences in in-state

ownership of local municipal bonds; the policies create incentives for concentrated local ownership. High tax privilege states have muni bond yields that are more sensitive to variations in supply and local idiosyncratic risk. The effects are stronger when local investors face correlated background risk and/or diminishing marginal non-pecuniary benefits from holding local assets.

WORKING PAPERS (* means presented by co-author)

IPOs, Human Capital, and Labor Reallocation, with Paige Ouimet (UNC), Rebecca Zarutskie (Board)

- Texas Finance Festival; Columbia; SEC; Tuck Private Equity and Entrepreneurship Research Conference 2017; Cavalcade 2017; HBS-Entrepreneurship; Changing Role of Stock Markets in Capital Formation - NYU 2017*; AFA 2017; Annual Meetings of the Society of Labor Economics (Seattle)*; NBER Entrepreneurship Working Group; Darden & Cambridge Judge Entrepreneurship and Innovation Research Conference*

We examine the human capital of IPO-filing firms and how going public affects their labor force. IPO-filing firms have high average wages and limited industrial diversification. Moreover, we document that a successful IPO increases departures of high-skilled employees to startups and diversification though employment growth in non-core industries. While IPOs do not significantly affect earnings growth of pre-IPO workers, post-IPO hires receive larger earnings increases upon joining. These results are most consistent with agency mechanisms associated with the transition to public ownership. Overall, going public has significant implications for the firms' overall labor force, the firm, and labor reallocation.

Entrepreneurial Spillovers from Corporate R&D, with Sabrina Howell (NYU)

- WFA; AEA 2019*; NBER-Corporate Finance; Texas Finance Festival*; Southern California Private Equity Conference*; Five-Star NYU; Stanford Financing of Innovation Summit; LBS Summer Symposium; UW Summer Finance Conference; Yale Junior Conference; WFA-AFFECT*; Junior Entrepreneurial Finance and Innovation Workshop; Duke*; Columbia; Junior Entrepreneurial Finance and Innovation Workshop 2017*; Center for Economic Studies - Census Bureau; CEAR*; Northwestern*

This paper offers the first study of how changes in corporate R&D investment affect labor mobility. We document that increases in firm R&D have no measurable effect on employee mobility to other incumbent firms or on exit from employment, but do spur employee departures to join the founding teams of startups. These startups are more likely to be outside the R&D-investing employer's industry, suggesting that the ideas moving via employees to startups would impose diversification costs on the parent. These startups also likely generate substantial spillover benefits, as they are more likely to be VC-backed, high-tech, and high-wage.

Pay, Employment, and Dynamics of Young Firms, with Chris Moser (Columbia), Wenting Ma (UNC-Econ), Paige Ouimet (UNC), Rebecca Zarutskie (Board)

- AEA 2021; AFA 2019; FIRS*; Society of Labor Economists (SOLE)*; Mitsui Labor and Finance Symposium; Junior Entrepreneurial Finance and Innovation Workshop; UNC Kenan Institute Frontiers of Entrepreneurship; Dartmouth*; HEC*; Barcelona GSE Entrepreneurship*

Why do young firms pay less? Using confidential microdata from the US Census Bureau, we find lower earnings among workers at young firms. However, we argue that such measurement is likely subject to worker and firm selection. Exploiting the two-sided panel nature of the data to control for relevant dimensions of worker and firm heterogeneity, we uncover a positive and significant young-firm pay premium. Furthermore, we show that worker selection at firm birth is related to future firm dynamics, including survival and growth. We tie our empirical findings to a simple model of pay, employment, and dynamics of young firms.

Crisis Innovation, with Asaf Bernstein (Colorado) and Filippo Mezzanotti (Northwestern)

- WFA*; EFA*; Hass School of Business*; Stanford University*; Northwestern University Economic History Festival; University of Virginia; WFA (AFFECT); Labor and Finance conference in Chicago; Michigan State University ; Conference; Minnesota junior conference; HEC Entrepreneurship Conference*; UT Dallas Conference*; University of Auburn*; University of Colorado*; the Third Junior Entrepreneurial Finance and Innovation Workshop*

In a differences-in-differences design we provide the first systematic evidence that distress from the Great Depression drove the single largest shift in innovative organization in U.S. history – from predominantly outside to inside the firm. Parallel trends prior to the shock, evidence of a drop within every major technology class, and consistent results using distress driven by commodity shocks all suggest a causal effect of local distress. Despite this decline in patenting, innovation is quite resilient, with inventors moving into firms and the average quality of surviving patents rising so much there is no observable change in aggregate future citations.

Friends during Hard Times: Evidence from the Great Depression, with Diego Garcia (Colorado), Geoff Tate (Maryland)

- AEA 2018; Olin’s 14th Annual Conference on Corporate Finance 2017; EFA 2017; LBS Summer Finance Symposium 2017*; FIRS 2017*; 2017 Financial Institutions, Regulation & Corporate Governance (FIRCG) Conference*; 2017 Spring Finance Conference at the UT-Dallas*

Using a novel dataset of over 3500 public and private firms, we construct the network of firm connections through executives and directors on the eve of the 1929 financial market crash. We find that more connected firms have 17% higher 10-year survival rates on average. Consistent with a role in facilitating access to working capital, the results are particularly strong for small firms, private firms, cash-poor firms, and firms located in counties with high bank suspension rates during the crisis. Moreover, connections to cash-rich firms that increase their accounts receivable during the peak of the crisis are most important for survival. Our results suggest that network connections can play a stabilizing role during a financial crisis by easing the flow of capital to constrained firms.

Artificial Intelligence, Firm Growth, and Industry Concentration, with Anastassia Fedyk (University of California, Berkeley), Alex He (University of Maryland), James Hodson (Jozef Stefan International Postgraduate School)

- NBER Corporate Finance; Michigan State University; University of Oklahoma; Tilburg University; Queen Mary University of London; AFFECT*; NYU WARPFIN (Women Assistant Professors in Finance)*; FOM Conference*; Labor and Finance Group Conference*; NBER SI Macroeconomics and Productivity*; UNC Junior Roundtable*; Sao Paulo School of Economics*; UC Berkeley*; University of Illinois Chicago*; University of Maryland*; Vienna Graduate School of Finance*

Which firms invest in artificial intelligence (AI) technologies, and how do these investments affect individual firms and industries? We provide a comprehensive picture of the use of AI technologies and their impact among US firms over the last decade, using a unique combination of job postings and individual-level employment profiles. We introduce a novel measure of investments in AI technologies based on human capital and document that larger firms with higher sales, markups, and cash holdings tend to invest more in AI. Firms that invest in AI experience faster growth in both sales and employment, which translates into analogous growth at the industry level. The positive effects are concentrated among the ex ante largest firms, leading to a positive correlation between AI investments and an increase in industry concentration. However, the increase in concentration is not accompanied by either increased markups or increased productivity. Instead, firms tend to expand into new product and geographic markets. Our results are robust to instrumenting firm-level AI investments with foreign industry-level AI investments and with local variation in industry-level AI investments, and to controlling for investments in general information technology and robotics. We also document consistent patterns across measures of AI using firms’ demand for AI talent (job postings) and actual AI talent (resumes). Overall, our findings support the view that new technologies, such as AI, increase the scale of the most productive firms and contribute to the rise of superstar firms.

Does Antitrust Enforcement Affect Industry Dynamics? Evidence from 40 Years of US DOJ Lawsuits, with Simcha Barkai (BC), Jessica Jeffers (Chicago), Ezra Karger (Chicago), and Ekaterina Volkova (U Melbourne)

- Labor and Finance Group Conference; Entrepreneurship Junior Group Online Seminars; Columbia University; University of Warwick*; University of Melbourne*; NYU WARPFIN (Women Assistant Professors in Finance)*

We construct a comprehensive dataset of antitrust lawsuits filed by the Department of Justice (DOJ) between 1980 and 2018, that includes the geographic scope and industries of the targeted companies. We find a continued secular decline in the number of antitrust lawsuits filed by the DOJ relative to the early 1980s, with wide variation across industries. We use this new dataset to study the systematic effect of antitrust lawsuits on industry dynamics, as measured by employment growth. We compare the employment growth of a nontradable industry located in a particular state that is the target of a DOJ lawsuit with the same non-tradable industry located in other states. In an event-study framework, we find that employment is relatively stable in the years leading up to antitrust lawsuits, but increases significantly in the years immediately following the lawsuit. The effect is stronger for local lawsuits and lawsuits remedying older violations. Our results suggest that antitrust enforcement has an important role in curbing anticompetitive behavior by firms and has a positive effect on aggregate outcomes.

The Color of Money: Federal vs. Industry Funding of University Research, with Alex Xi He (University of Maryland), Sabrina Howell (NYU), Elisabeth Perlman (U.S. Census Bureau), Joseph Staudt (U.S. Census Bureau)

- MIT; NBER SI Science of Science Program*; NYU*; virtual Finance in the Cloud conference*; NSF SI Future of IP conference*

Universities are an important source of new knowledge. U.S. universities have traditionally relied on federal government funding, but since 2000 the federal share has declined while the private industry share has increased. This paper offers the first causal comparison of federal and private university research funding, focusing on patenting and researcher career outcomes. We begin with unique data on grants from 22 universities, which include individual-level payments for everyone employed on all grants for each university-year. We combine this with patent and Census data, including national IRS W-2 histories. We instrument for an individual's source of funding with government-wide R&D expenditure shocks within a narrow field of study. These funding supply changes yield a set of compliers who are pushed away from federal funding and into private funding. We find that a higher share of federal funding causes fewer but more general patents, much more high-tech entrepreneurship, a higher likelihood of remaining employed in academia, and a lower likelihood of joining an incumbent firm. Increasing the private share of funding has opposite effects for most outcomes. It appears that private funding leads to greater appropriation of intellectual property by incumbent firms.

DISCUSSIONS

2020

- Baghai, Silva: *The Impact of Going Public on the Firm's Human Capital*, AFA

2019

- Borgschulte, Guenzel, Liu, Malmendier: *CEO Stress and Life Expectancy: The Role of Corporate Governance and Financial Distress*, FOM
- Liu, Mao, Tian: *The Role of Human Capital: Evidence from Corporate Innovation?*, AFA
- Ewens, Townsend: *Are Early Stage Investors Biased Against Women?*, AFA

2018

- Ewens, Gorbenko, Korteweg: *Venture Capital Contracts*, LBS Private Equity Conference
- Lindsey, Stein: *Angels, Entrepreneurship, and Employment Dynamics: Evidence from Investor Accreditation Rules*, Cavalcade
- Brown, Martinsson, Thomann: *Environmental Policy and Technical Change: Pollution Taxes, Access to*

Finance, and Firm Absorptive Capacity, HoF-MFS conference on Sustainable Finance

· Choi, Lou, Mukherjee: *The Effect of Superstar Firms on College Major Choice*, Miami Behavioral Finance Conference

2017

· Nanda, Samila, Sorenson: *The Persistent Effect of Initial Success: Evidence from Venture Capital*, Tuck Private Equity and Entrepreneurship Research Conference

· Barbosa, Bilan, Celerier: *Credit Supply Shocks and Human Capital: Evidence from a Change in Accounting Norms*, EFA

· Xu: *Skilled Labor Supply and Corporate Investment: Evidence from the H-1B Visa Program*, SFS Cavalcade

· Burton, Dahl, Canales, Huesch, Sorenson: *Startup Employees*, KIFERC

2016

· Lin, Schmid, Sun: *Conflict or Collusion? How Employees in the Boardroom Affect Management Compensation*, EFA

· Rettl, Stomper, Zechner: *The Stability of Dividends and Wages: Effects of Competitor Inflexibility*, SFS Cavalcade

REFEREE

Journal of Finance; Review of Financial Studies; Journal of Banking and Finance; Management Science; Journal of Labor Economics; Journal of Empirical Finance; Quarterly Journal of Economics; Review of Finance; Review of Corporate Finance Studies

CONFERENCE COMMITTEE

Labor and Finance Online Seminars; EFA; Cavalcade; Colorado Finance Summit; Junior Entrepreneurial Finance and Innovation Workshop; Rising Five-Star Workshop

TEACHING

Entrepreneurial Finance, 2019-2021

Entrepreneurial Finance and Private Equity, 2016-2017, 2017-2018

Corporate Finance, 2015

EMPLOYMENT

Research Assistant, University of North Carolina, Chapel Hill, NC *2011 to 2016*
· Anil Shivdasani, Christian Lundblad, Geoffrey Tate

Balance Sheet Analyst, Regions Financial Corp, Birmingham, AL *2008 to 2009*
· Formulated forecasts of Net Interest Income for a \$140 Bln bank balance sheet

Research Assistant, the University of Alabama, Tuscaloosa, AL *2007 to 2008*

Project Coordinator, Centre for Strategic Design, Kharkiv, Ukraine *2004 to 2005*

SKILLS ◇ CERTIFICATIONS

Computer: SAS, SQL, Stata, Perl, C++, Bloomberg, Linux

Languages: English (fluent), Russian (native), Ukrainian (basic)

Certification: Passed all three levels of the Chartered Financial Analyst (CFA) examinations

OUTSIDE ACTIVITIES

None