

The Finance Wage Premium and Entrepreneurship

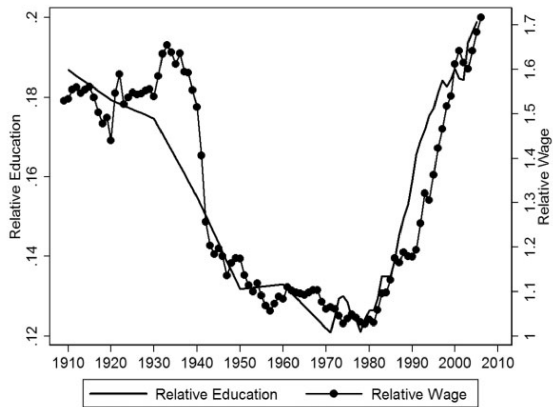
By Gupta and Hacamo

Discussion by Alex Xi He
University of Maryland

ITAM Finance Conference
June 3, 2022

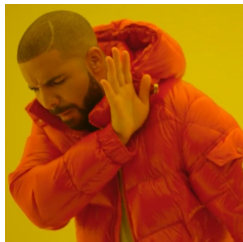
Finance Wage Premium

- This paper studies the impact of finance wage premium on entrepreneurship of college graduates
- Motivation: finance wage premium has increased dramatically, and more skilled labor enter finance



Philippon and Reshef (2012)

Theoretically, the effect is ambiguous (Philippon, 2010)



Higher finance wage premium attracts talent to finance who would otherwise be engineers and entrepreneurs. This reduces entrepreneurship and innovation



The growth of financial sector can promote entrepreneurship and economic growth by relaxing entrepreneurs' constraints

Overview

- Part 1: Studies the effect of finance wage premium on the probability of taking a finance job and entrepreneurship
 - Strategy: compare consecutive cohorts within school-major
 - Main finding: higher finance wage premium increases probability of working in financial sector and entrepreneurship
- Part 2: Peer effects of graduates working in finance on entrepreneurship
 - More peers in the same school-major-cohort work in the financial sector (PE, VC, IB) are associated with higher entrepreneurship

Data

- The paper uses LinkedIn data, which is the perfect dataset for studying this question
- More descriptive statistics would be helpful:
 - What is the trend for finance jobs among engineering graduates? How are the trends different for top schools and top students?
 - Which students (school, honor, engineering sub-major, degree level) choose finance jobs?
 - Do graduates switch between finance jobs and engineering jobs? “4% join the financial sector at graduation, and nearly 10% join the financial sector within 5 years of graduation”
- Do you have connections data? Would be super useful for peer effects

Specification

- Causal chain: higher finance wage premium $\longrightarrow$ more people enter financial sector
peer effects $\longrightarrow$ higher entrepreneurship
- What is the mechanism for finance wage premium in the graduation year to affect entry into financial sector?
- Could be that finance wage premium affects wages of the job offers graduates get. Then wages for entry-level workers would matter more than mean wages (finance wages are back-loaded).
- Or the perception of finance wage premiums affects students' career choice.
 - But career choices may be made well before graduation (finance courses, internship). Does lagged finance wage premium also have an effect?
 - Risks also matter (Philippon and Reshef, 2012). Do higher earnings risks reduce entry?

Where Is Finance Wage Premium From?

- Finance wage premium is an equilibrium outcome
- Can be affected by skill composition
 - Overall finance wage premium can increase when more educated workers enter finance industry even it doesn't change within college graduates
 - Need to adjust for composition of education/skills in different sectors
- Can also be affected by demand. More IPOs of startups increase the demand for IB and the wages of bankers
 - Comparing consecutive cohorts within school-major doesn't address this
- Don't need that finance wage premium causes entry into financial sector. They both reflect the broader expansion of the financial sector

Peer Effects

- Several tests to address common shocks
 - Peers from same school-cohort and different major have no effect
 - Finance jobs unrelated to entrepreneurship (e.g., trading) have no effect
- There may be common shocks (shocks to startup opportunities within a narrow field) that are major-specific and only affect entrepreneurial finance jobs
- Potential IV strategy: instrument for number of peers entering finance jobs using the expansion of finance firms connected to specific schools (can be measured using hiring in LinkedIn data)

IV for Number of Peers in Finance Jobs

- Babina, Fedyk, He, and Hodson (2021): firm-university hiring networks are highly persistent over time

	Share of Post-2010 Hires		Share of Post-2010 AI Hires			
	(1)	(2)	(3)	(4)	(5)	(6)
Share of Pre-2010 Hires	0.465*** (0.017)		0.550*** (0.054)			
Share of 2010 Workers		0.147*** (0.006)		0.236*** (0.028)		
Share of Pre-2010 STEM Hires					0.342*** (0.040)	
Share of 2010 STEM Workers						0.197*** (0.021)
Firm FE	Y	Y	Y	Y	Y	Y
University FE	Y	Y	Y	Y	Y	Y
Observations	327,313	327,313	177,097	177,097	177,097	177,097

Aggregate Implications

- What are the characteristics of the marginal startups being created (beyond employment and patenting)? Do they require large fixed costs? Are they riskier? Are they in more competitive industries? Are they in less financially developed areas?
- Is it zero-sum? Any negative spillovers to engineers without peers in the financial sector?
- Counterfactual: train more finance graduates in MBA programs and they join the entrepreneurial teams as CFOs. Any frictions in that scenario? Do engineering entrepreneurs get more from their peers in finance jobs than people from pure finance backgrounds?

Other Comments

- Do EF peers in same school-major and previous (or later) cohorts also affect entrepreneurship?
- Number of peers are based on students taking EF jobs at graduation. What about peers switching to EF jobs a few years after graduation?
- The effect on entrepreneurship is positive only for top schools. Why?
- Labor markets may be less local for top school graduates. Potential bias? Can you do a weighted average across regions where graduates of each university go in the past?
- Are the results different before and after financial crisis?

Conclusion

- My favorite kind of paper: solid empirical evidence for an important question with ambiguous theoretical predictions
- Main result: higher finance wage premium and more engineers entering financial sector increases entrepreneurship through a peer effects mechanism
- Implication: at current level, engineers entering finance is not causing entrepreneurship to decline
- Comments:
 - Mechanism for finance wage premium to affect entry into finance and entrepreneurship
 - Finance wage premium and entry into finance are jointly determined
 - Potential IV strategy for peers in finance to further address common shocks
 - Additional tests for understanding aggregate implications