

Research on Gender in Corporate Finance: Literature Review, Data, and Unanswered Questions

Camille Hebert

University of Toronto

Conseil National de l'Information Statistique
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Why should we do research on gender and corporate finance?

- Context:
 - ▶ Gender pay gap: Women earn **80 cents** what men earn
 - ▶ Women make up **5% CEOs** at S&P500 and 19% board members
 - ▶ Women **found 30%** of the population of new firms but raise 10% of the VC funding
- Two dominant explanations in the literature:
 - ▶ Demand-side: Women have a **different objective function** (Blau and Khan(2006), Goldin (2014), Cook, Diamond, Hall, List, Oyer (2020))
 - ▶ Supply-side: Managers discriminate against female workers (Goldin and Rouse (2002))
- Theories of discrimination
 - ▶ **Taste**-based discrimination (Becker, 1957)
 - ▶ Belief-based discrimination (Arrow, 1972)
 - Rational beliefs = **statistical** discrimination
 - Miscalibrated beliefs (Borhen, Imas and Rosenberg, 2019)
 - ▶ **Context-dependent stereotypes** (Bordalo, Coffman, Genaioli, Shleifer, 2016)
 - Exaggeration of the average abilities of the dominant group → "male" in computer programming, "female" in health-care

Why should we do research on gender and corporate finance?

- Empirical work on this falls into (overlapping) categories:
 - ▶ Measurement
 - ▶ Causal analysis
- Affirmative actions used in causal analysis:
 - ▶ **Board quotas:** Norway (2003), Spain, Iceland, Italy, Finland, France (2014, 2017)
 - European parliament (November 20 2013) voted in favor of a proposed draft law that would require 40% female board members by 2020
 - ▶ **Pay transparency** (European commission report on “Pay transparency in the EU”, 2017)
 - 1 Right to request information ⇒ Finland, Ireland, Norway
 - 2 Duty to report averages of gender pay levels ⇒ Austria, Belgium, Denmark, France, Italy, UK (2018)

Why should we do research on gender and corporate finance?

- Goals today:

- ① Present **3 research papers** based on administrative datasets

- Norway: *Breaking the glass ceiling? The effect of board quotas on female labour market outcomes in Norway.*, Bertrand, M., Black, S. E., Jensen, S., & Lleras-Muney, A. *The Review of Economic Studies* (2019)
 - Denmark: *Do Firms Respond to Gender Pay Gap Transparency?*, Bennedsen, M., Simintzi, E., Tsoutsoura, M., Wolfenzon, D. *Journal of Finance* (2020)
 - France: *Gender stereotypes and entrepreneur financing.* Hebert, C.,(2021)

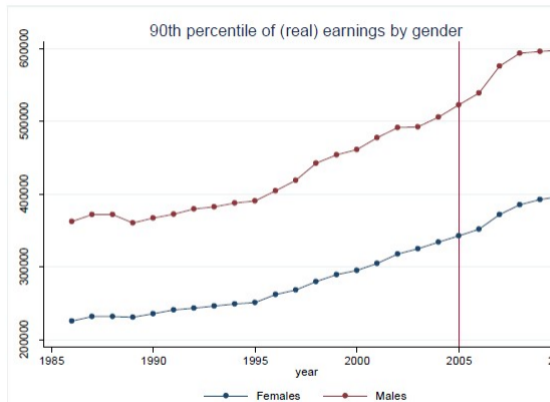
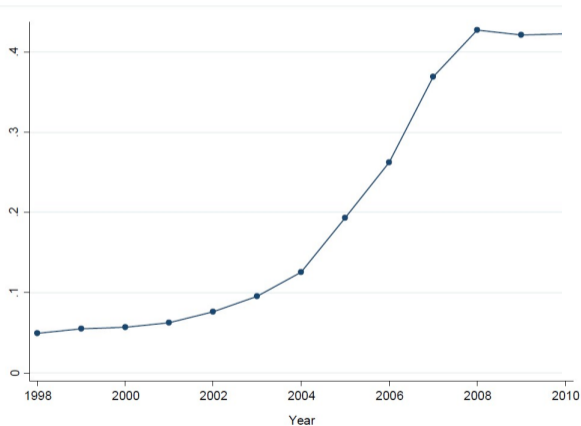
- ② Identify **future research opportunities** with the French administrative data

Paper 1: Effect of Board Quotas on Female Labor Market Outcomes

- Question: Do board quotas benefit to women beyond female board members?
 - ▶ effects of board quotas on female board members' employment outcomes
 - ▶ effects on other female employees at firms affected by the quota
- Key ingredients:
 - ▶ Norway, December 2003, Law mandating 40% representation of each gender on board of public firms
 - ▶ Norwegian matched employer-employee dataset 1986–2010 (includes education, family, tax, earnings)
- Main findings:
 - 1 New female board members were observably more qualified and earn more
 - 2 **No evidence** that that these gains at the very top **trickled-down to female employees**
 - No effect on the gender wage gaps or female representation in top positions
 - No effect on enrollment of women in business education programs
 - No effect on earnings and promotion of women elsewhere in the economy

Paper 2: Do Firms Respond to Gender Pay Gap Transparency?

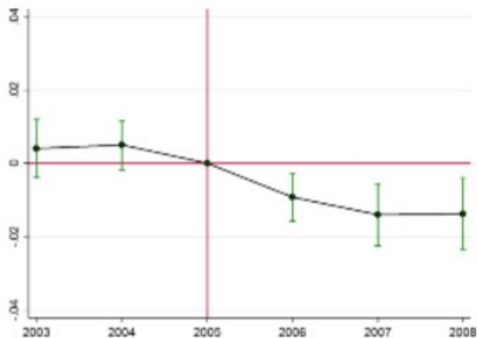
Figure 1: Percentage Female Directors in ASA Firms, 1998 to 2010



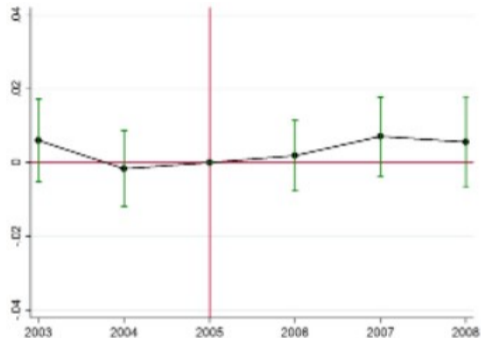
Paper 2: Do Firms Respond to Gender Pay Gap Transparency?

- Question: Does higher within firms **wage transparency** reduce the **gender pay gap**?
- Key ingredients:
 - ▶ Danish matched employer-employee dataset 2004-2008
 - ▶ Legal change in 2006 \Rightarrow employer's duty to produce statistics on wage differences in Denmark
- Main findings:
 - ① Wage transparency **reduces** the gender pay gap
 - male employees' compensations slow down (-7%) relative to men in the control group
 - no effect on female employees
 - ② Negative effect on corporate performance

Paper 2: Do Firms Respond to Gender Pay Gap Transparency?



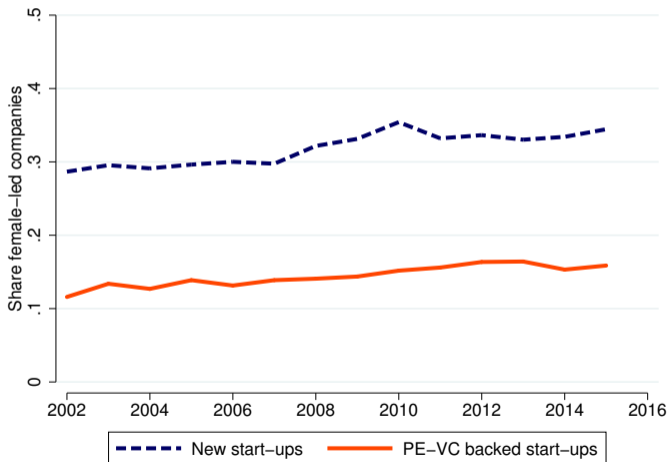
(a) Male Log(Wage)



(c) Female Log(Wage)

Paper 3: Gender Stereotypes and Entrepreneur Financing

- There is a long-lasting **gender funding gap** in entrepreneurial finance



- **Tax files** (Ficus-Fare)
 - ▶ Available for every firms in France from 2002-2017
 - ▶ Balance-sheet + income statements + employers' payrolls
- **SINE survey** (*Système d'Information des Nouvelles Entreprises*)
 - ▶ Large-scale and representative survey of French entrepreneurs
 - conducted on cohorts: 2002, 2006, 2010, 2014 – [30,000; 50,000] new entrepreneurs
 - 25% of the start-ups created within a year
 - 90% Response rate (run by the fiscal Administration)
 - ▶ Entrepreneurs' biographic information: **gender**, education, experience, family structure
 - ▶ Start-ups' characteristics: financing sources, activity
 - ▶ Qualitative information: initial motivations, hiring and development expectations
- **VC deals** from commercial databases: VentureXpert, Crunchbase, Pitchbook
 - ▶ information about investors (gender, experience) + deals (amount, terms)
 - ▶ Linked using a Python web-crawler on www.Bodacc.fr and www.Societe.com and **API Insee**

- Main results:
 - ① Female entrepreneurs are on average less likely to raise capital
 - ② Novel empirical finding: Minority-led start-ups are less likely to raise external equity in gender-incongruent sectors
 - Female entrepreneurs in male-dominated sectors
 - Male entrepreneurs in female-dominated sectors
 - ③ The minority group **out-performs**
 - The bar is set higher for minorities in gender-in-congruent sectors
 - ▶ Evidence consistent with **context-dependent stereotypes**
 - ▶ Possible other applications to other characteristics-contexts
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- Takeaway: Invest in minority-led start-ups!

- How to identify **gender in the French administrative data**?
 - ① Survey with **self-reported** gender: SINE
 - ② Use the **DADS** and identify the occupation
 - CEO and board members: PCS 23 (Chefs d'entreprise de plus de 10 personnes)
 - Managers: PCS 37 (Cadres des services administratifs et commerciaux)
 - Engineers: PCS 38 (Ingenieurs et cadres techniques d'entreprise)
- Area of future research in corporate finance
 - ① Mandatory Board quotas and the performance of **private firms** (Beaumont and Hebert, WP 2022)
 - DADS + Ficus-Fare + Boardex (commercial database)
 - ② Are female-founded firms more **credit constraint** than male-founded firms?
 - Bank financing: Crédit distribué aux entreprises par les banques (SCR, Banque de France) + DADS
 - Grants: BPI's financing database + DADS