Gender Bias in Top Executives: A Diagnosis from Stock Market

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Women, even at the top management, tend to be under-compensated comparing to their male counterparts.

Gender pay gap and occupational segregation are generally explained by:
- Gender difference in qualification: human capital models (Mincer and Polachek 1974)
- Treatment differences arise from discrimination (Aigner and Cain 1977, and Goldin 2013)

Empirical evidence is possibly compromised by the correlation between unobservable differences in productivity and preferences and gender
- Examine the cohort of men and women with similar education, skills, and motivation, as based on educational attainment (Wood, Corcoran et al. 1993) and job rank (Cohen, Broschak et al. 1998)
- Identify strong instruments for ability and productivity

Although explicit market predictions on the performance of male and female executives do not exist, market participants behave on their beliefs about top executives' ability to bring future profitability.

- If there is no gender bias on ability, female-led firms should be priced as those male-led firms, i.e., stock market reacts in the same direction and to the same extent to leadership change.
- If females' ability is systematically underestimated, female-led firms would outperform market expectation.
- Whether excess returns can persist depends on whether market adjusts perceptions as actual performance is realized.
  - For statistical-based discrimination, i.e., imperfect information about female CEO's ability, market should be able to properly adjust perceptions based on actual performance over time, and excess returns should not persist.
  - For ubiquitous and mistake-based gender bias, market participants always distort the image of female CEOs in a way that fits the stereotypes associated with feminity rather than qualities associated with leadership, and excess returns should persist over time.

- Event study over the (-1, +1) announcement window
  - Negative stock market reaction of 3.47% associated with an announcement of a female CEO, while an announcement of a male CEO leads to only 0.5% decline in stock price. Investors have less confidence in female leaders.
- Long-term stock return. Fama-Macbeth regression $r_t = \alpha + \beta FCEO + \gamma X_t + \epsilon_t$
  - Variable of interest is FCEO, which is some measure of the term when a female CEO runs the firm
  - $X_t$ is a vector of usual firm fundamentals included as controls, i.e., size, value, momentum
  - Expect market to adjust perceptions of females' ability, and over time, there should be no differential performance of female-led firms.

References

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