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Gender premium and economic downswings

Elona Shehu [a], Khurram Shahzad [b], Ghulame Rubbaniy [c,*], Abida Perveen [d]

[a] European University of Tirana, Blvd. ''Gjergj Fishta'', Nd 70/B209, Tirana, Albania

[b] Faculty of Economics and Business Administration, Vrije University Amsterdam, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands

[c] College of Business, Zayed University, PO Box 144534, Khalifa City, Abu Dhabi, United Arab Emirates

[d] Comsats Institute of Information Technology, Sahiwal, Pakistan

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ABSTRACT

Using data of 2140 US firms over the period of 1998–2012, we investigate if gender–compensation relationship exists in executives' compensation and bonus plans of the US firms; and whether this compensation difference is more visible during economic downswings. We find that not only the gender premium exists for male CEOs in executives' compensation plans of the US companies but also the male executive bonuses are more sensitive to market downturns compared to their female counterparts. On average, female executives get a gender disadvantage in the form of lower total compensation and bonuses compared to their male counterparts, which persists even during adverse economic conditions. Finally, contrary to our initial expectations, we find male and female CEOs are equally likely to be laid-off, even during market recessions, despite female CEOs being claimed better manager by the mainstream literature.

1. Introduction

The recent global financial crisis (GFC) has provoked the reappearance of a previously heated and unsettled debate about the relationship between CEO compensation and firm performance. This relationship has not only become more complex due to mimicking, window dressing, downsizing, CEO characteristics and new hires as a result of layoffs, but is also documented to be stronger overtime (Hall and Liebman, 1998). Since this relationship plays a central role in the decision making process of the stakeholders of a firm including – but not limited to – creditors, shareholders, prospective investors, employees and policy makers, an empirical evidence on this relationship is likely to provide a supplement to their decision making process. Furthermore, the demand for the empirical evidence of this relationship has grown multiple times particularly due to occurrence of two recent crises (i.e., dotcom bubble and GFC), where GFC has brought concerns about the compensation incentives of CEOs (Benmelech et al., 2010). In particular, evidence of clear performance differences between the male and female CEOs (see for instance Barber and Odean, 2001; Khan and Vieito, 2013) makes the empirical investigation of CEOs compensation–performance relationship during the tumbling times very valuable not only for policy makers, professionals and academia but also for CEOs themselves to understand the dynamics of performance tied compensation across genders; we therefore, focus on gender, executive compensation and financial crises to investigate whether gender matters in CEOs compensation–performance relationship during downmarket times.

Existing literature document various determinants of executives' compensation that include – but not limited to – firm performance, GFC, economic cycles, gender, firm size, and age. For instance studies focusing on performance–reward relationship show that rewards are determined mainly by the past performance, industry performance and the difficulty level of operations (Roberts and Milgrom, 1992); however, Murphy (1999) states that base salary, stock options and the annual bonuses are the main determinants of CEO compensation, while bonuses are dependent on the annual change in the firm's performance. Pennathur and Shelor (2002) examined the influence of earning per share (EPS) on CEOs'

* Corresponding author.
E-mail addresses: elona.shehu@uet.edu.al (E. Shehu), k.shahzad@vu.nl (K. Shahzad), Ghulame.Rubbaniy@zu.ac.ae (G. Rubbaniy), abida.saima@ciitsahiwal.edu.pk (A. Perveen).

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compensation and document a positive relationship between the compensation level and EPS. The findings of Chhaochharia and Grinstein (2009) are consistent with Pennathur and Shelor (2002) in documenting a positive relationship between executives' total compensation and firm performance proxies (EPS and return on assets (ROA)). Growth sales are also documented to be significantly covariate with executives' compensation (Murphy, 1985).

In context of the GFC Murphy (2011) states that after a rare decline during recent recession (2008–2009), CEO compensation increased tremendously a year later. In 2009, the median total compensation for CEOs in S&P 500 companies increased by 35%, which has been the highest compensation level during last four decades. Benmelech et al. (2010) document that although GFC has brought concerns about the stock based compensation incentives, many executives during the GFC were among the most rewarded executives in the US. However, Group (2009) report indicates that during the recession and post-recession periods, shareholders seemed to be very unlikely to support any increase in executives' salary. The report shows that during the GFC, the salary increase (referring to the median value) was eight percent, while one year later it was zero percent compared to before crisis. Hence, a positive relation was found between recession periods and executives' compensation during the GFC. Hayes and Schaefer (2009) provide an empirical evidence that firms over pay CEOs to give the impression that they are solid and healthy during recession. Mackenzie (2011) examined 100 best paid CEOs in Canada to conclude that CEOs were paid high bonuses during the peak times of the GFC; however, they are skeptical about their results when it comes down to comparison of CEOs of the Canadian and the US banking industry in context of development and involvement in the bust process. Using corporate performance proxies for instance return on equity and annual profits, Matolcsy (1999) studied executives' compensation for different economic cycles over the period from 1987 to 1995, and documents a flat relationship between managements' compensation and changes in corporate performance proxies during recession times, which turns to positive during non-recession periods.

Comparison of male and female executives' performance has also been heated debate among the academia and finance professionals. For instance, existing literature document that females perform better than males in the US investment industry because of their socialized and empathic attitude, investing in less risky portfolios, spending more time researching before making an investment decision, and more willing to ask for advice once they are in trouble (Barber and Odean, 2001). Khan and Vieito (2013) studied gender influence on firm performance in US companies over the period from 1992 to 2004, and document that CEOs' gender counts in firm performance as companies managed by female CEOs face a lower risk than the companies managed by male CEOs. In European settings Smith et al. (2006) use a sample of 2500 Danish companies over the period from 1993 to 2001, to find that a better proportion of females in a company has a positive impact on overall performance of the company. Campbell and Mínguez-Vera (2008) report that gender diversification has a positive effect on the value of Spanish firms. Lam et al. (2013) report that female CEOs have a better performance compared to their male counterparts in Chinese firms. These findings outside the US show that better performance of female CEOs compared to male CEOs seems to be a general phenomenon.

Shin (2012) and, Mohan and Ruggiero (2003) use the US companies to document that female executives receive lower compensation compared to their male counterparts. Lam et al. (2013) investigated CEOs' gender in Chinese listed firms over the period from 2000 to 2008 to evidence that female executives of private companies receive less compensation than their male counterparts. From the previous discussion, if female CEOs perform better than their male counterparts and compensation plans are performance tied then female executives' compensation should be higher as well. To investigate this case, we define gender premium (coefficient of gender dummy) as the additional compensation that male CEOs would get compared to their female counterparts. Its positive value shows a gender premium for male CEOs and gender disadvantage for female CEOs.

Some studies document that CEO compensation is also tied to the firm size. The instances of the findings of these studies are: CEO compensation is strongly correlated to the firm size (Bebchuk and Grinstein, 2005), total compensation is positively dependent on firm size (Bebchuk and Grinstein, 2005), CEOs of bigger firms earn nearly 11% more in bonuses and 15% more in total compensation compared to managers of smaller firms (Rose and Shepard, 1994), and CEO wealth is weakly related to firm performance in large firms (Edmans and Gabaix, 2009). Although, firm size affects the CEO compensation, the findings about the strength of the effect in firm size-CEO compensation relationship are mixed. Finally, there is a perception that older CEOs, having more experience, are highly rewarded compared to younger CEOs (David et al., 1998).

The above discussion suggests that not only the effect of the performance on CEOs' incentives is mixed but also changes during the recession times and across genders. However, existing literature do not provide the evidence explaining CEOs compensation–performance relationship across genders during the times of economic downturns. Taking both mixed views about the CEO compensation–performance relationship and the idea of female CEOs perform better than their male counterparts into account, we combine CEOs compensation–performance relationship with recession and gender to investigate if CEO compensation–performance relationship across genders shifts during the financial crises. *In particular, we investigate 'does gender–compensation relationship exist in CEOs compensation plans? If yes, does it vary along economic cycle(s)?* Since bad CEO performance may lead to firing or laying off the CEO, we assume laying off as a compensation of the bad performance; and therefore, make our analysis robust by investigating an additional question, i.e., *are male CEOs more likely to be laid off during recession periods?* Testing whether male CEOs are more likely to be laid off during recession not only provides an explanation about gender's ability to deal with the financial distress but also signals the gender's performance based retention ability to be retained by the employer during market downturns. The test also helps us to respond to Gayle et al. (2012) who state that even females and males may have the same ability, there is an uncertainty about female skills. In summary, we are particularly interested to investigate if differences between CEOs gender–compensation relationship exists and persists during the times of economic downturns.

We contribute to the existing literature on CEOs compensation–performance relationship in a few ways: firstly, as per the authors best knowledge, there is no existing study available that could explain the executives' performance–compensation relationship across genders during the down market times. Secondly, our layoff comparison between male and female CEOs during adverse economic shocks highlights the salient features of CEOs gender–compensation relationship during economic downturn, which has never been explored in the past. Finally, although the benefits of this study to its country of origin, the US, are profound without doubt, the outcome of this research might also be used to drive the motivation and encouragement towards the female participation at decision-making level positions.

Our findings show that not only the gender–compensation relationship exists in executives' compensation plans of the US companies but also the male executive bonuses are more sensitive to market downturns compared to their female counterparts. On average, female executives get a gender disadvantage in the form