"I Do": Does Marital Status Affect How Much CEOs "Do"?

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Abstract

This paper explores whether a CEO's marital status reveals unobservable risk preferences which influence their firm's investment and compensation policies. Using biographical data for CEOs of large domestic companies, we find that corporate deal-making activity (e.g., mergers, joint ventures, major capital expenditures, etc.) and overall firm riskiness both increase significantly with personal life restructuring (e.g., marriages and divorces). This relation is supported by an instrumental variables analysis and also an investigation surrounding CEO turnover. Finally, the link between a CEO's marital status and preference for option-based compensation further suggests that personal restructuring may be an indicator of executive risk appetites.

Keywords: managerial biases, marriage, divorce, corporate deal-making activities, managerial effort, firm risk, CEO stock options

JEL Classifications: D22, G32, G34

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1. Introduction

There is a long tradition of research in finance that shows the importance of the top management team for generating shareholder wealth (Jensen and Meckling, 1976; Adams, Almeida and Ferreira, 2005; Fahlenbrach, 2009). While much of the literature focuses on compensation contracts or governance structures designed to incentivize or monitor, more recent work focuses on personal characteristics or behavioral biases of top executives and how these biases influence corporate activity (Heaton, 2002; Malmendier and Tate, 2005; Kaplan, Klevanov and Sorenson, 2012). Several authors have shown that the level of executive risk aversion is important for determining corporate policies and firm value (Coles, Daniel and Naveen, 2006; Low, 2009). While executive behavior that appears either excessively risk averse or risk seeking can be detrimental, research has shown that CEOs with preferences approaching risk neutrality can be value increasing (Treynor and Black, 1976; Liu and Taffler, 2008; Gervais, Heaton and Odean, 2011). Although existing research demonstrates that boards elicit risky behavior through incentive contracts (Core and Guay, 1999), little work exists on signals of unobservable managerial risk preferences.

We question whether observable marital status is an indicator of executive risk aversion and examine its relation, if any, with corporate deal-making activity. We hypothesize that CEO marital states may be indicative of risk preferences and a willingness to initiate bold strategic changes. We utilize biographical data to categorize the CEOs of Standard & Poor's (S&P) 1500 firms by their ultimate (i.e., eventual) marital state. We define CEOs who have never been married or divorced as having experienced zero personal restructurings; CEOs who are identified as being married at some point have experienced at least one personal restructuring; CEOs who are identified as being divorced at some point have experienced at least two personal restructurings (i.e., the marriage and then the subsequent divorce).[1]

We find that variations in CEO marital states suggest differences in executives' preferences with regard to corporate policy. Considering corporate deal-making activity (e.g., mergers, joint ventures, major hiring programs, divestitures, capital restructurings, etc.) as a proxy for the willingness to implement bold strategic initiatives, we find that firm activity is increasing with CEOs' ultimate marital states. Parameter estimates imply that moving from single to married or married to divorced is associated with a 1.8–3.8% increase in the likelihood that the company will engage in a major corporate activity. This relation is reaffirmed in an instrumental variables analysis which accounts for endogenous CEO selection and in an event study considering leadership turnover that shifts between CEOs of differing ultimate marital

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[1] Arguably, other relationship statuses (e.g., extramarital affairs, polygamous marriages, etc.) might also affect corporate behavior. We view these arrangements as exceptional and worthy of individual study, but beyond the scope of our current analysis. Cline, Walkling and Yore (2014) show how these executive life choices, among others, affect corporate policies.

states. Further supporting the hypothesis that marital states reflect executive risk preferences, CEOs' ultimate marital state is positively and significantly related to overall firm riskiness as measured by the company's equity beta and its costs of capital.

An examination of executive compensation by marital status is particularly revealing as CEOs with more personal life restructuring exhibit a strong preference for compensation contracts that incentivize risk taking. For example, restructuring CEOs accept a larger portion of their pay in the form of executive stock options. Furthermore, the vega pay-for-performance sensitivity of their stock option portfolios (i.e., the change in the value of their option portfolio with a change in risk) also increases by 14.8% with personal restructuring, indicating that these CEOs have an appetite for pay-for-risk.

Overall, our paper contributes to the emerging literature in finance focusing on managerial effort and the effect that managerial biases have on corporate policy and their potential to affect shareholder wealth (Heaton, 2002; Malmendier and Tate, 2005, 2008; Hirshleifer, Low and Teoh, 2012). Second, our paper adds to the search for observable personal traits that identify these unobservable biases. While characteristics such as age (Barker and Mueller, 2002), education (Bertrand and Schoar, 2003), early life experiences (Malmendier, Tate and Yan, 2011), military service (Lin, Ma, Officer and Zou, 2011), or even sensation seeking (Cain and McKeon, 2012) have been analyzed, we are among the first to explore personal life restructuring as a credible signal for managerial risk aversion. Given the obvious breadth of personal life choices such as marriage and divorce, this is an important gap in the literature.

A recent working paper by Roussanov and Savor (2013) also explores the effect of executive marriage on corporate policies and is the closest to our work. The authors similarly find that marriage affects acquisition activity, the level of capital investment, and stock return volatility. However, while their models suggest that single CEOs are matched to riskier firms, our paper adopts a different methodology. That is, we not only separate divorced from single and married CEOs, we also consider the number of marital restructuring events in executives' lives. Furthermore, we investigate other corporate policies such as executive compensation, nonmerger and acquisitions deal making, costs of capital, and systematic risk. These additional facets should be viewed as distinguishing features of our work.

Finally, our paper adds to the broader literature on the influence of marriage and divorce on investment choices. The bulk of the existing research focuses on domestic households with regard to security selection in their personal portfolios and the conclusions are often conflicting (e.g., Agnew, Balduzzi and Sundén, 2003; Bertocchi, Brunetti and Torricelli, 2011). Given the contested literature on marriage and divorce in investment finance, it remains very much an empirical question as to how personal restructuring influences corporate investment activity.

2. Literature review and hypotheses development

The crux of this investigation is the examination of the potential link between upheavals in executives' personal lives and corporate workplaces. It is possible that managerial risk preferences and leadership's decisiveness are jointly related to these types of disruptions. Consequently, marital status may additionally be associated with significant variation in corporate investment policies, firm risk, and the nature of selected compensation contracts.

There are several studies outside the realm of corporate finance which suggest that marriage may increase the appetite for risk. Married individuals invest more aggressively in their personal portfolios, hold larger stock allocations (Bertaut, 1998; Bertocchi, Brunetti and Torricelli, 2011) and trade more frequently in their 401(k) accounts relative to singles (Agnew, Balduzzi and Sundén, 2003). In a survey of university faculty, Grable (2000) finds that the married respondents are more risk tolerant than single respondents. However, some research suggests marriage may attenuate risk appetites (Riley and Chow, 1992; Roussanov and Savor, 2013[2]), but the conclusions are often complicated by the additional impacts of gender (Sundén and Surette, 1998), spousal risk preferences (Christiansen, Joensen and Rangvid, 2011), and race (Jianakoplos and Bernasek, 1998).

In contrast to marriage, the relation between divorce and risk preferences remains unresolved and, in the corporate arena, largely unexplored. Divorced individuals exhibit the highest risk aversion indices (Riley and Chow, 1992) but they also tend to be relatively more sensation seeking (Zuckerman and Neeb, 1980). The intersection of several papers suggests that angry individuals are more likely to divorce (Caspi, Elder and Bern, 1987) and favor more risk-seeking decisions (Lerner and Keltner, 2001; Fessler, Pillsworth and Flamson, 2004). However, this effect may also interact with gender. According to Christiansen, Joensen and Rangvid (2011), divorce causes men to adopt riskier portfolios and women safer portfolios. Because the overwhelming majority of CEOs are men (Jurkus, Park and Woodard, 2011), if present, the risk-seeking effect should be dominant in our sample.

If marital changes signal risk preferences, then there are strong reasons to believe that these signaled preferences will also explain corporate policies and agreed-upon compensation contracts. Managers have significant discretion to change the capital investment mix at their firms and often do so to suit their personal risk preferences (Heaton, 2002; Gervais, Heaton and Odean, 2011). Malmendier and Tate (2005) find

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[2] Interestingly, and in contrast to this study, Roussanov and Savor (2013) find that married CEOs are matched to more risk-averse firms, although they investigate a distinctly different set of risky firm behaviors (e.g., level of capital expenditures, research and development spending, and advertising expenses) than those studied here (e.g., corporate deal-making activity and CEO compensation). We note that their methodology treats divorced individuals differently (i.e., divorced individuals are initially considered "married" unless biographical data reveals that the divorce precedes their CEO tenure, in which case they are re-coded as "single"), and does not track serial marriages and divorces nor evaluate the corporate impact of replacing a CEO with one having a differing marital status using an event study research design.

that overconfident CEOs invest more heavily in capital expenditures while Hirshleifer, Low and Teoh (2012) find a greater focus on innovation and patent acquisitions, activities which are associated with greater return volatility. Likewise, Cain and McKeon (2012) find that sensation-seeking managers with a private pilot's license operate their firms in an overall risky manner. Thus, inherent managerial biases and unobservable attitudes toward risk can materially affect risky corporate investments.

The influence of marital status might extend past pure investment speculation and manifest itself as a willingness to make bold decisions that deviate from the status quo. Prior work identifies decisiveness as a complementary measure of risk appetite. Risk taking is one of the instruments Weissman (1976) uses to measure subjects' decisiveness. According to Hofstede (1983), cultures that value decisiveness exhibit higher levels of organizational risk taking, a supposition for which Chong (2013) empirically provides support. Decisiveness and risk taking are both cognitive personality traits measured by the U.S. Air Force's Basic Attributes Tests (Endsley and Bolstad, 1994), and both load positively on managerial aggression (Kaplan, Klevanov and Sorenson, 2012). However, while the trait is at times inextricably linked to risk taking, decisiveness could have a substantially different impact on the types of strategic changes firms adopt. For example, while overconfident and/or risk-seeking CEOs may exhibit a proclivity to lead their firms into risk-increasing endeavors, decisive CEOs may enact organizational changes that affect firm risk in either direction. Regardless, these monumental changes are nonetheless personally risky to the executive if they are not successful. An executive who voluntarily, dramatically transforms his/her home or corporate environment in any fashion has displayed a penchant for shaking things up, a possible risk-seeking trait.

Corporate deal making is a primary tool for top management to implement bold strategic changes, allowing the rapid entry or exit from a given product market (McCardle and Viswanathan, 1994). Prior work has shown that confident or risk-seeking executives are more likely to engage in corporate deal making (Roll, 1986; Ben-David, Graham and Harvey, 2013). For example, Malmendier and Tate (2008) and Liu and Taffler (2008) find that overconfident CEOs initiate more merger deals than their peers, while Lin, Ma, Officer and Zou (2011) similarly find that executives with a military background are also more likely to undertake frequent acquisitions. While some bold strategic changes have the potential to reduce cash flow volatility (e.g., diversifying acquisitions), Williams and Rao (2006) argue that corporate deals such as mergers are one of the major decisions that managers can make which influence firm volatility. Consistent with this argument, Moeller, Schlingemann and Stulz (2005) show substantial increases in firm risk around major acquisitions.

Finally, riskier policies are often incentivized by way of the CEO's compensation contract at the behest of the board. For example, firms often utilize option-based compensation to successfully entice CEOs to implement riskier policies (Coles, Daniel and Naveen, 2006). However, it is important to recognize that these contracts are the product of bilateral negotiations between the CEO and the compensation committee to accommodate each other's preferences. Therefore, an observed compensation

contract, by the very nature that it is agreed to by the CEO, is in part a reflection on the top manager's risk appetite. Rajan and Wulf (2006) argue that the value of a given compensation contract to an executive is conditional on the shape of their utility function and Carpenter (2000) shows that a convex contract alone does not necessarily induce riskier behavior. Gervais, Heaton and Odean (2011) argue that firms should tailor their compensation contracts to fit CEO preferences and such tailoring may often be the most cost-efficient means from the firm's perspective (Rajan and Wulf, 2006). In this view, the observed market-clearing contract reflects on the manager's risk appetite. Consistent with this argument, Ryan and Wiggins (2001) find CEOs choose less incentive-based pay at or near retirement when their tolerance for risk is relatively low.

Given the abovementioned literature, we develop two hypotheses with regard to personal restructuring (i.e., changes in marital status) and corporate policies:

> H1: *Increases in personal restructuring should increase corporate deal-making activity and overall firm risk.*
>
> H2: *Increases in personal restructuring should be associated with compensation contracts that reward risk.*

3. Sample selection and methodology

3.1. Sample selection

We begin our sample selection with the universe of firms (excluding utilities and financials) with complete data listed in the EXECUCOMP database from 1993 to 2005. This database provides biographical and compensation details on the top-five corporate officers for all companies listed in the S&P 1500 index. Using this resource, we then hand-collect the marital histories and additional personal data such as age, tenure, race, religion, place of birth, and personal wealth for the annual CEOs at each firm from *Marquis Who's Who*, the *Notable Names Database*, and through online news search engines such as *Factiva*. To ensure we accurately identify the CEO's marital status, we retain only those observations where we can confirm these additional characteristics since it is increasingly likely that the CEO's marital status (single or otherwise) will be reported if these more tangential characteristics are also included in the public data sources.

We match this data set to annual financial statement data from COMPUSTAT, stock price data from CRSP, and corporate activity data from Thomson Financial's SDC Platinum Database. The resulting merged sample contains 7,173 firm-year observations and includes 1,867 CEOs heading 1,442 firms. As this period encompasses some rather tumultuous events (e.g., the dot-com bubble, 9-11, the passage of Sarbanes-Oxley, the peak of the subprime mortgage bubble, etc.), we recognize the importance of controlling for their impact on our key variables of interest and include calendar year fixed effects in our multivariate tests.

3.2. Personal restructuring

We construct our marital variables as follows. $Restructure_i$ is a discrete variable that equals 2 if the sample CEO i has ever been identified as being divorced; 1 if the CEO has ever been identified as being married with no mention of divorce; and, 0 if the CEO has never been identified as married or divorced. As an alternative measure, $Total\ Restructure_i$ equals the sum of the number of times a sample CEO has ever been married plus the number of times the CEO has ever been divorced. $Restructure_i$ can assume values of 0, 1, or 2. $Total\ Restructure_i$ is technically unbounded on the upside, but empirically assumes values from 0 to 8.[3] Because $Restructure_i$ and $Total\ Restructure_i$ reflect the executives' marital states as evaluated during the data collection period (i.e., 2005 and later), we refer to these measures as the executives' "ultimate" marital states.

3.3. Corporate deal-making activity

Companies initiate a variety of corporate deals to implement bold strategic pursuits. Accordingly, our key variable of interest focuses on material observable corporate deal-making activity and is constructed as follows. The $Activity\ Index_{f,t}$ for firm f at time t is formed by summing the frequency of composite dummy variables: $Merger_{f,t}$, $JV\,/\,SA_{f,t}$, $Internal\ Investment_{f,t}$, $Hiring\ or\ Layoff_{f,t}$, $Focus\ Increase\ or\ Decrease_{f,t}$, $Divestiture_{f,t}$, $Restructuring_{f,t}$, and $Debt\ or\ Equity\ Issuance_{f,t}$.

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\begin{aligned}
Activity\ Index_{f,t} = {} & Merger_{f,t} + JV/SA_{f,t} + Internal\ Investment_{f,t} \\
& + Hiring\ or\ Layoff_{f,t} + Focus\ Increase\ or\ Decrease_{f,t} \\
& + Divestiture_{f,t} + Restructuring_{f,t} \\
& + Debt\ or\ Equity\ Issuance_{f,t}.
\end{aligned} \tag{1}
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Each component of this index is a (0,1) indicator denoting the initiation of a merger ($Merger_{f,t}$); a joint venture or strategic alliance ($JV\,/\,SA_{f,t}$); a capital expenditure program exceeding 10% of total assets ($Internal\ Investment_{f,t}$); a change in employment that is more than two standard deviations from the industry mean change in employment for the year ($Hiring\ or\ Layoff_{f,t}$); a change in the firm's number of two-digit Standard Industrial Classification codes it operates in ($Focus\ Increase\ or\ Decrease_{f,t}$); an asset sale, spin-off, or carve-out ($Divestiture_{f,t}$); a debt restructuring reported in the SDC Restructuring database ($Restructuring_{f,t}$); and a new debt or equity offering ($Debt\ or\ Equity\ Issuance_{f,t}$). While the maximum annual activity level a firm can achieve is eight (the minimum being zero if a firm engages in none of these activities), the variable does not empirically exceed seven during the sample period.

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[3] The extreme observation is Oracle's Larry Ellison with four marriages and four divorces.

For robustness, *Binary Activity$_{f,t}$* is a dummy variable that equals 1 if *Activity Index$_{f,t}$* takes on positive values.

3.4. Compensation risk

In an effort to further observe personal restructuring as a reflection of risk preferences, we examine its effect on the CEO's appetite for pay-for-risk by observing the composition of their market-clearing compensation contracts. The expectation is that risk-seeking executives would prefer pay packages that incentivize risk. Our first measure is the portion of the CEO's pay in the form of stock options. Specifically, *PSO1Yr$_{i,t}$* equals the one-year percentage pay in stock options for executive i at time t and is defined as the Black-Scholes value of the CEO's options granted divided by total compensation (EXECUCOMP item TDC1).

We also measure the change in the value of the CEO's option portfolio to stock price and volatility fluctuations. Following Core and Guay (1999), we define stock option pay-for-performance sensitivity to shareholder wealth, *Delta PPS$_{i,t}$*, as the dollar change in the value of the stock option portfolio to a 1% change in stock price for executive i at time t. Likewise, we define the risk sensitivity of the option portfolio, *Vega PPS$_{i,t}$*, as the dollar change in value of the stock option portfolio to a 1% change in stock return volatility (i.e., standard deviation). *Vega PPS$_{i,t}$* directly measures how much the CEO is rewarded for taking on more risk and should be negatively related to risk aversion. Since these measures are skewed for highly compensated executives, we use log transformations in our regressions. We refer the reader to the appendix in Core and Guay (1999) for further details regarding the construction of either of these variables.

3.5. Firm risk

We implement several proxies for firm risk. Our first proxy is overall systematic risk as measured by the firm's market model equity beta. The estimation is conducted by regressing the firm's stock returns over a 60-month period on the CRSP value-weighted index using the standard market model. The estimated unlevered beta is then adjusted according to Blume (1971) to mitigate the effect of temporary shocks and to account for the long-term tendency of betas to converge to the market average.[4] In unreported results, we re-estimate beta for shorter periods, such as 36 months, and the results are robust to the choice of the estimation window.

Second, we estimate the costs of capital as another proxy with the assumption that riskier firms should exhibit higher costs of capital. Following Damodaran (2012), the Capital Asset Pricing Model's *Cost of Equity$_{f,t}$* for firm f at time t

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[4] This is the same adjustment applied by services such as Bloomberg and Value Line.

is estimated using the abovementioned beta, along with the prevailing 10-year Treasury rate and the arithmetic average annual market return from 1926 to the sample observation date as proxies for the risk-free rate and expected market return, respectively. In unreported results we re-estimate firms' cost of equity using (a) the one-month Treasury bill rate as the risk-free proxy (per Bruner, Eades, Harris and Higgins, 1998; Brotherson, Eades, Harris and Higgins, 2013), and (b) the discounted free cash flow to equity model. The paper's main results are robust to both alternate specifications. Finally, we compute the weighted average cost of capital ($WACC_{f,t}$) as traditionally defined for firm f at time t using the firm's debt, common equity and preferred equity capital structure weights; the firm's above cost of equity; the firm's rated cost of debt (i.e., firms with ratings higher than Baa are assigned the prevailing Moody's Aaa rating, whereas firms with ratings of Baa or lower are assigned the prevailing Moody's Baa rating); the firm's cost of preferred stock (i.e., preferred dividends divided by the value of preferred stock); and Graham's (1996) trichotomous tax rate.

3.6. Sample description

The annual distribution of sample observations, ultimate CEO marital states, and corporate activity is reported in Table 1. Examining our sample CEOs, 41% of firm-years contain CEOs classified as single, 52% contain CEOs who get married but not divorced, and 7% contain CEOs who get married and then divorced. This is broadly consistent with the most recent 2012 U.S. Census data, which reports that 28% of individuals are single, 56% are married, 11% are divorced (the remaining are widowed; U.S. Census Bureau, 2012). Roughly 67% of our sample engages in corporate deal making and the average firm in our sample conducts one deal-making activity each year. Joint Ventures and Strategic Alliances are the most frequent deal type while Debt Restructurings are the least frequent.

Table 2 provides additional information regarding CEO characteristics, firm activity and the distribution of other variables of interest. All values are winsorized at the 1st and 99th percentile to mitigate the influence of outliers. The other sample statistics are consistent with prior research (Rogers, 2002; Coles, Daniel and Naveen, 2008). The firms in our sample are fairly large and well-established with mean (median) total assets of $6.9 B ($1.5 B) and total sales of $4.7 B ($1.5 B). They are profitable on an operating basis with an average operating return on assets (ROA) of 14.2%. On average, the CEOs take 38% of their total compensation in the form of stock options in a given year and 47% over a five-year period. Our sample CEOs have a mean (median) *Delta PPS*$_{i,t}$ of $333 K ($122 K) and a *Vega PPS*$_{i,t}$ of $154 K ($59 K), which indicate the increase in the value of their option portfolio for a 1% increase in stock price and annualized volatility, respectively.

Table 1

Data distribution

Panel A of this table presents the distribution by year for the 7,173 firm-year observations in our sample with complete data in ExecuComp over the 13-year period from 1993 to 2005. *Number of Single CEOs*, *Number of Married CEOs*, and *Number of Divorced CEOs* indicate the number of chief executives identified with an ultimate marital status as single, married, or divorced, respectively, in the sample year according to *Marquis Who's Who*, the *Notable Names Database*, and online news search engines (e.g., *Factiva*). Panel B presents the incidence of corporate activity (*Binary Activity$_{f,t}$*) in our sample by year as well as the frequency of the components of the *Activity Index$_{f,t}$*. The activity index is formed by summing the frequency of composite dummy variables: Merger, JV/SA, Internal Investment, Hiring or Layoff, Focus Increase or Decrease, Divestiture, Restructuring, and Debt or Equity Issuance. Each of these components is defined in the text.

Panel A: Marital status by year

Year	Number of observations	Number of single CEOs	Number of married CEOs	Number of divorced CEOs
1993	424	160	229	35
1994	596	227	319	50
1995	637	252	334	51
1996	684	272	358	54
1997	675	270	353	52
1998	630	257	325	48
1999	542	221	284	37
2000	508	198	276	34
2001	467	184	248	35
2002	525	218	271	36
2003	507	231	245	31
2004	520	243	245	32
2005	458	214	216	28
Total	**7,173**	**2,947**	**3,703**	**523**

Panel B: Corporate activity by year

Year	Hiring or layoff	Internal investment	Focus increase or decrease	Merger	JV/SA	Divest-iture	Restruc-turing	Debt or equity issue	Binary activity
1993	54	100	45	14	155	25	8	81	303
1994	96	154	45	27	225	32	10	106	427
1995	130	148	60	52	225	38	9	64	438
1996	114	166	57	66	209	48	15	103	478
1997	129	134	56	70	241	46	16	110	472
1998	132	138	141	90	218	61	25	96	487
1999	118	103	90	80	196	47	19	93	395
2000	116	101	45	83	158	40	15	92	354
2001	74	70	29	61	128	44	10	62	293
2002	72	82	29	48	123	27	33	96	332
2003	57	45	34	30	124	25	22	84	286
2004	63	39	31	31	117	42	2	88	279
2005	60	36	20	28	118	32	3	67	253
Total	**1,215**	**1,316**	**682**	**680**	**2,237**	**507**	**187**	**1,142**	**4,797**

Table 2

Summary statistics

This table presents the summary statistics for the 7,173 firm-year observations in our sample. $Total\ Assets_{f,t}$ equals the firm's annual total assets, reported at book value. $Sales_{f,t}$ is the firm's annual net revenues. $Firm\ Age_{f,t}$ is stated in years and is calculated as the maximum number of years the firm is listed in CRSP or COMPUSTAT. $Intangibles_{f,t}$ equals the value of the firm's intangible assets scaled by total assets. $Cash\ to\ Assets_{f,t}$ equals cash and marketable securities normalized by total assets. The firm's annual return on assets, $ROA_{f,t}$, is calculated by dividing operating profit before depreciation ($EBITDA$) by total assets. Each firm's annual book-to-market ratio, $BVMV_{f,t}$, is calculated by dividing the book value of common equity by its market value. Daily raw stock returns for the 250 trading days ending with the fiscal year-end are used to calculate each firm's one-year return, $RET_{f,t}$. $Equity\ Beta_{f,t}$ equals the firm's market model unlevered β calculated over a 60-month period using Blume's (1971) adjustment. $Cost\ of\ Debt_{f,t}$ is equal to the prevailing Moody's Aaa or Baa corporate bond rate, where firms with a Baa rating or lower are assigned the Baa rate. The firm's $Cost\ of\ Equity_{f,t}$ is determined from the CAPM using the estimated equity β. $WACC_{f,t}$ is the weighted average cost of capital computed using the firm's capital structure weights and costs of debt, equity, and preferred stock. $CEO\ Age_{i,t}$ and $CEO\ Tenure_{i,t}$ equal the executive's age and firm tenure in years, respectively. $PSO1Yr_{i,t}$ ($PSO5Yr_{i,t}$) equals the CEO's one (five) year percentage pay in stock options. $Delta\ PPS_{i,t}$ is defined as the wealth sensitivity of the CEO's option portfolio to a 1% change in stock price while $Vega\ PPS_{i,t}$ is the wealth sensitivity to a 1% change in volatility. $CEO\ Ownership_{i,t}$ is the percentage of common stock, excluding stock options, held by the CEO. $CEO\ Wealth_{i,t}$ equals the natural logarithm of accumulated salary and bonuses earned by the executive at any EXECUCOMP firm. $Activity\ Index_{f,t}$ is a discrete variable that equals the sum of the following dummy variables: $Merger_{f,t}$, $JV/SA_{f,t}$, $Internal\ Investment_{f,t}$, $Hiring\ or\ Layoff_{f,t}$, $Focus\ Increase\ or\ Decrease_{f,t}$, $Divestiture_{f,t}$, $Restructuring_{f,t}$, and $Debt\ or\ Equity\ Issuance_{f,t}$. $Binary\ Activity_{f,t}$ is a dummy variable that equals 1 if $Activity_{f,t}$ exceeds 0. $Religious\ CEO_i$ is an indicator variable that equals 1 if the executive has been publically affiliated with any religion. $Foreign\ CEO_i$ is an indicator variable that equals one if the executive was born or attended university outside of the United States. $Minority\ CEO_i$ is an indicator that equals 1 if the executive is identified as non-Caucasian. $Restructure_i$ is a discrete variable that equals two if the CEO has ever been identified as being divorced; one if the CEO has ever been identified as being married with no mention of divorce; and 0 if the CEO has never been identified as married or divorced. $Total\ Restructure_i$ equals the sum of the number of times a CEO has ever been married plus the number of times a CEO has ever been divorced. The variables in the first panel below have been winsorized at the 1% and 99% levels to reduce the influence of outliers.

Panel A: Continuous variables

Variable	N	Mean	SD	Q1	Median	Q3
Firm size, scope, profitability, and performance						
$Total\ Assets_{f,t}$	7,173	6,918.7	15,970.6	485.2	1,530.6	5,161.9
$Sales_{f,t}$	7,173	4,680.9	8,217.8	486.4	1,462.8	4,649.7
$Firm\ Age_{f,t}$	7,173	29.49	20.62	12.00	25.00	44.00
$Intangibles_{f,t}$	7,173	0.11	0.15	0.00	0.04	0.16
$Cash\ to\ Assets_{f,t}$	7,173	0.13	0.17	0.01	0.05	0.17
$ROA_{f,t}$	7,173	14.19%	9.61%	9.46%	14.14%	19.43%
$BVMV_{f,t}$	7,173	0.62	0.26	0.42	0.63	0.81
$RET_{f,t}$	7,173	18.43%	51.35%	−11.42%	11.52%	37.69%

(Continued)

Table 2 (Continued)

Summary statistics

Panel A: Continuous variables

Variable	N	Mean	SD	Q1	Median	Q3
Corporate risk						
Equity Beta$_{f,t}$	7,173	1.01	0.59	0.63	0.85	1.19
Cost of Debt$_{f,t}$	7,173	7.37%	0.85%	6.76%	7.45%	8.02%
Cost of Equity$_{i,f,t}$	7,173	12.36%	4.03%	9.60%	11.66%	14.22%
WACC$_{f,t}$	7,173	11.26%	3.43%	8.67%	10.74%	13.24%
Personal CEO characteristics						
CEO Age$_{i,t}$	7,173	55.55	7.05	51.00	56.00	60.00
CEO Tenure$_{i,t}$	7,173	13.32	11.06	5.00	9.59	19.51
CEO compensation, ownership, and wealth						
PSO1Yr$_{i,t}$	7,173	38.22%	28.89%	12.75%	36.21%	61.65%
PSO5Yr$_{i,t}$	4,951	46.73%	24.44%	27.26%	45.62%	66.52%
Delta PPS$_{i,t}$	7,173	333.09	560.86	43.51	121.96	349.44
Vega PPS$_{i,t}$	7,173	153.75	245.22	21.80	58.92	170.81
CEO Ownership$_{i,t}$	7,173	2.46%	5.32%	0.08%	0.35%	1.80%
CEO Wealth$_{i,t}$	7,173	7.95%	1.54%	7.38%	8.12%	8.82%

Panel B: Indicator variables

Variable	N	0	1	2	3	4	5	6	7	8
Corporate deal-making activity										
Activity Index$_{f,t}$	7,173	2,376	2,581	1,506	523	141	38	6	2	
Binary Activity$_{f,t}$	7,173	2,376	4,797							
Personal CEO characteristics										
Religious CEO$_i$	7,173	6,185	988							
Foreign CEO$_i$	7,173	6,459	714							
Minority CEO$_i$	7,173	7,012	161							
Restructure$_i$	7,173	2,947	3,703	523	280	41	58	11	12	11
Total Restructure$_i$	7,173	2,947	3,580	233						

4. Personal restructuring and corporate deal-making activity

Under the hypothesis that marital status may serve as an observable reflection of otherwise opaque risk preferences at the individual level, we begin our empirical analysis by questioning whether CEO marital states are related to shifts in the strategic direction of the firm. Specifically, we investigate whether personal restructuring is positively linked to corporate restructuring, an activity that demonstrates a willingness to deviate from the status quo and is often associated with risk perception biases (e.g., Roll, 1986; Williams and Rao, 2006; Malmendier and Tate, 2008).

4.1. Restructuring and firm activity

We first turn to a pooled multivariate logistic regression to study the impact of CEO marital restructuring on corporate deal-making activity. Specifically, in Table 3, we regress firm *f*'s activity at time *t* on CEO *i*'s marital state, control variables, and industry and year fixed effects. Models 1–4 use the cumulative logistic regression in Equation (2) with *Activity Index$_{f,t}$* as the dependent variable; Models 5–8 use the binary logistic regression in Equation (3) with *Binary Activity$_{f,t}$* as the dependent variable.

$$\text{logit}[\Pr(\textit{Activity Index}_{f,t} \geq k)] = \alpha + \beta\, \textit{Marital} + \lambda \textit{Controls}_{f,t} + \varepsilon. \quad (2)$$

$$\text{logit}[\Pr(\textit{Binary Activity}_{f,t} = 1)] = \alpha + \beta\, \textit{Marital} + \lambda \textit{Controls}_{f,t} + \varepsilon. \quad (3)$$

Marital represents our marital status proxies (i.e., *Restructure$_i$* in Models 1 and 5, *Total Restructure$_i$* in Models 2 and 6) and the estimates (β) on these variables are our coefficients of interest.

Our models include a vector of control variables (*Controls$_{f,t}$*) that might also explain corporate deal making as guided by the literature. Recent research indicates that managers take advantage of run-ups in their stock price by using their overvalued equity as currency in deals (Shleifer and Vishny, 2003). Therefore, we include the firm's book-to-market ratio (*BVMV$_{f,t}$*) and annual stock return (*RET$_{f,t}$*) in the model. Free cash flow problems are often cited as motivations for excessive investment (Jensen, 1986). Alternatively, high cash flow firms may systematically have less need for some of the deals we study (e.g., capital issuances, restructurings, etc.). Accordingly, we include both *ROA$_{f,t}$* (EBITDA to assets) and *Cash to Assets$_{f,t}$* as controls. Additional standard firm controls are also included, such as firm size (*Total Assets$_{f,t}$*), intangible assets (normalized by total assets), and firm age.

CEO characteristics other than executives' marital states may furthermore affect firm decisions. We include *CEO Age$_{i,t}$* and *CEO Tenure$_{i,t}$*, which equal the executive's age and firm tenure in years, respectively. Since managerial ownership is often viewed as a potential resolution to the agency problems mentioned above, we include *CEO Ownership$_{i,t}$*, which is defined as the percentage of common stock, excluding stock

Table 3

Personal restructuring and firm activity

This table presents the relation between marital status and corporate deal-making activity. The cumulative logistic regressions in the first four models use *Activity Index$_{f,t}$* (integers 0–7) as the dependent variable. The binary logistic regressions in models 5–8 use *Binary Activity$_{f,t}$* (one if *Activity Index$_{f,t}$* > 0) as the dependent variable. Model 9 (10) is the first (second) stage specification of an instrumental variables regression in which *Total Restructure$_i$* (*Activity Index$_i$*) is regressed on our instrument *Religious CEO* (the predicted *Total Restructure* value form the first stage) and the standard controls. All variables are defined in Table 2 and the text. Ultimate marital status measures include *Restructure$_i$* and *Total Restructure$_i$*, whereas annual marital status measures include *Restructure$_{i,t}$* and *Total Restructure$_{i,t}$*.

	Activity index				Binary activity				Total restructure	Activity index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Restructure	*0.069				*0.082					
	(3.13)				(3.07)					
Total Restructure		**0.049	***0.169	***0.165		**0.070	**0.175	***0.188		**0.159
		(3.98)	(10.01)	(18.90)		(4.97)	(6.59)	(13.85)		(2.80)
Total Assets$_{f,t-1}$	***0.411	***0.411	***0.395	***0.391	***0.389	***0.388	***0.378	***0.373	**0.115	**0.197
	(468.94)	(471.66)	(242.98)	(246.07)	(266.90)	(266.62)	(139.35)	(138.73)	(13.30)	(16.60)
Cash to Assets$_{f,t-1}$	**0.406	**0.402	***0.697	***0.684	0.345	0.338	***0.763	***0.748	**0.286	0.006
	(4.80)	(4.70)	(8.59)	(8.26)	(2.44)	(2.35)	(7.09)	(6.78)	(3.27)	(0.06)
ROA$_{f,t-1}$	***−1.485	***−1.489	***−1.046	***−1.042	***−0.925	***−0.923	−0.312	−0.297	−0.230	**−0.765
	(27.10)	(27.22)	(8.59)	(8.52)	(7.64)	(7.60)	(0.55)	(0.50)	(−1.70)	(−5.18)
BVMV$_{f,t-1}$	−0.014	−0.014	0.241	*0.250	0.001	0.002	*0.314	*0.324	**−0.236	−0.004
	(0.01)	(0.01)	(2.53)	(2.72)	(0.00)	(0.00)	(3.04)	(3.24)	(−4.14)	(−0.07)
RET$_{f,t-1}$	**−0.101	**−0.102	***−0.164	***−0.167	−0.066	−0.066	−0.139	**−0.142	***0.058	*−0.058
	(5.07)	(5.12)	(8.43)	(8.75)	(1.56)	(1.58)	(4.34)	(4.55)	(2.71)	(−2.46)
Intangibles$_{f,t-1}$	0.171	0.172	**0.466	**0.458	−0.043	−0.041	0.307	0.292	0.007	−0.120
	(1.07)	(1.08)	(4.85)	(4.69)	(0.05)	(0.04)	(1.42)	(1.28)	(0.09)	(−1.39)

(Continued)

Table 3 (*Continued*)

Personal restructuring and firm activity

	Activity index				Binary activity				Total restructure	Activity index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Firm Age$_{f,t-1}$	−0.001	−0.001	0.000	0.000	−0.003	−0.003	−0.000	−0.000	0.000	−0.000
	(0.74)	(0.69)	(0.03)	(0.05)	(2.65)	(2.55)	(0.03)	(0.02)	(0.46)	(−0.33)
CEO Age$_{t,t-1}$	***−0.013	***−0.013	*−0.008	*−0.008	***−0.014	***−0.014	−0.008	*−0.009	**0.010	**−0.006
	(13.72)	(13.95)	(3.39)	(3.60)	(11.58)	(12.01)	(2.61)	(2.83)	(6.29)	(−3.24)
CEO Tenure$_{f,i,t-1}$	***−0.009	***−0.009	***−0.013	***−0.013	***−0.007	***−0.007	***−0.011	***−0.011	−0.001	**−0.004
	(16.99)	(17.02)	(20.83)	(21.15)	(7.00)	(7.03)	(9.41)	(9.80)	(−1.25)	(−3.34)
CEO Ownership$_{f,i,t-1}$	−0.002	−0.003	−0.001	−0.002	−0.003	−0.003	−0.000	−0.001	**0.019	−0.003
	(0.19)	(0.32)	(0.01)	(0.11)	(0.27)	(0.39)	(0.00)	(0.02)	(8.68)	(−1.01)
CEO Wealth1$_{i,t-1}$	***0.058	***0.057	***0.064	***0.063	0.030	0.030	0.022	0.021	0.002	0.009
	(10.91)	(10.84)	(8.02)	(7.73)	(2.03)	(2.03)	(0.60)	(0.55)	(0.21)	(1.07)
Foreign CEO$_i$	*0.134	*0.133	0.101	0.108	***0.275	***0.275	**0.298	**0.306	−0.107	0.058
	(2.99)	(2.93)	(1.13)	(1.27)	(7.79)	(7.75)	(5.97)	(6.27)	(−2.86)	(1.40)
Minority CEO$_i$	*−0.268	*−0.267	−0.319	*−0.367	**−0.464	**−0.469	***−0.565	***−0.620	**0.512	**−0.261
	(2.85)	(2.83)	(2.56)	(3.35)	(6.07)	(6.20)	(5.64)	(6.66)	(6.82)	(−3.03)
Religious CEO$_i$	0.094	0.090	0.066	0.039	0.118	0.110	0.065	0.030	**0.595	
	(2.05)	(1.86)	(0.52)	(0.18)	(2.01)	(1.73)	(0.28)	(0.06)	(19.19)	
N (firm-years)	7,173	7,173	4,430	4,430	7,173	7,173	4,430	4,430	7,173	7,173
Marital status	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate

***, **, * indicate statistical significance at the 0.01, 0.05 and 0.10 level, respectively.

options, held by the CEO. *CEO Wealth$_{i,t}$* equals the natural logarithm of accumulated salary and bonuses earned by the executive at any EXECUCOMP firm. Finally, *Religious CEO$_i$, Foreign CEO$_i$*, and *Minority CEO$_i$* are indicator variables that equal 1 if the executive has been publically affiliated with any religion, was born or attended a university outside of the United States, or is non-Caucasian, respectively.

As predicted by *H1*, the estimates in Table 3 reveal that CEOs who have undergone personal life restructurings are more inclined to initiate bold strategic changes. Our measures of personal restructuring are significantly positively related to the likelihood that the company undertakes a deal as well as the total number of activities that are executed in the fiscal year. For example, in Model 5 a one-unit increase in *Restructure$_i$* (e.g., going from Single to Married or Married to Divorced) is associated with a 1.82% higher probability of some type of corporate deal-making activity.[5] Older, more experienced CEOs tend to engage in less deal making. However, we are cautious to draw our final conclusions at this point without further investigation.

4.2. Restructuring and firm activity: Annual restructuring

There are two possible interpretations of any relation between marital status and firm activity. First, as we contend, there may be an unobservable personality characteristic or quality (e.g., risk perceptions) that drives such personal and professional restructuring. For example, while both marriages and divorces may be pursued for conflicting reasons, inarguably they are life-altering events that should not be treated lightly. Consequently, an individual who elects to engage in multiple marriages and divorces exhibits a willingness to dramatically change his or her life numerous times, a behavior that could be viewed as risk seeking. This decisiveness in one's personal decisions may similarly be evidenced in their workplace behavior as indicated in Table 3. Forward-looking measures such as the "ultimate" *Restructure$_i$* and *Total Restructure$_i$* used above reflect this first interpretation. However, the uncertainty regarding the timing of the personal restructuring relative to the corporate deal making activity is problematic. The usefulness of marital status as an observable signal hinges on the ability to relate *previous* personal restructuring to deal making.

Alternatively, a causal relation may exist in which firm operations impact marital status. Considering the latter, one could argue that the time commitment required with corporate restructurings could negatively impact the quality of marriage and, thus, increase the probability of divorce. However, this would not explain why married CEOs engage in more corporate activity than their never-married counterparts. Nevertheless, an investigation into this possibility requires CEOs' marital histories.

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[5] The maximum likelihood estimates presented in the tables represent the impacts on the log odds ratios. Using the unconditional distribution as the starting probability point, the marginal effects reported in the paper are obtained by multiplying the maximum likelihood estimates by the product of the unconditional probability of the event multiplied by one less this probability. In this case, $0.082 \times (4,797/7,173) \times (1 - 4,797/7,173) = 0.0182$.

While the dates of these major life events are not available for the entire sample, for the subset of CEOs who either remain single or for whom we can identify the dates of marriage(s)/divorce(s), we create two new "annual" variables tracking their marital histories to date. Specifically, *Total Restructure*$_{i,t}$ equals the total number of marriages and divorces CEO *i* has experienced prior to and including the current fiscal year *t*. Likewise, *Restructure*$_{i,t}$ reflects CEO *i*'s marital state as of fiscal year *t*—equaling 2 if the CEO has been divorced, 1 if the CEO has been married but not divorced. These annual measures allow us to consider both interpretations (i.e., previous marital restructurings may serve as a more useful signal than ultimate marital restructurings of any unobservable personality traits and/or may lend support to an argument regarding the direction of causality, if any). We note that the Pearson correlation coefficients between "ultimate" *Restructure*$_i$ and "annual" *Restructure*$_{i,t}$ as well as between "ultimate" *Total Restructure*$_i$ and "annual" *Total Restructure*$_{i,t}$ are 0.9041 and 0.8050, respectively, which indicates that our primary explanatory variables *Restructure*$_i$ and *Total Restructure*$_i$ capture much of the variation in these time series equivalents.

We re-estimate Equations (2) and (3) using these new explanatory variables in Table 3 (i.e., *Restructure*$_{i,t}$ in Models 3 and 7, *Total Restructure*$_{i,t}$ in Models 4 and 8) for the 4,430 firm-year observations in which we can establish complete marital histories. The results continue to support our first hypothesis that executives who have undergone personal restructurings are more inclined to enact bold strategic initiatives. The parameter estimates from Model 7 imply that a one-unit increase in *Restructure*$_{i,t}$ (e.g., going from single to married or married to divorced) is associated with a 3.81%[6] higher probability of engaging in a corporate deal-making activity. Furthermore, the increased precision of the parameter estimate (i.e., lower standard errors) for *Total Restructure* indicates the appropriateness of considering those CEOs who serially marry and divorce.

4.3. Restructuring and firm activity: Instrumental variables analysis

Thus far we have found a significantly positive relation between personal and corporate upheavals. However, it is entirely possible that restructuring CEOs are, for whatever reason, systematically attracted to riskier firms and that existing firm policies explain the relation we observe rather than the risk appetite of the executive. Such endogeneity would produce a correlation between marital status and the error term, leading to biased and inconsistent parameter estimates. To ameliorate this concern, we implement the following instrumental variables estimation of Equation (2):

$$Total\ Restructure^* = \delta_0 + \delta_1 Instrument + \delta_2 Controls_{f,t} + u. \tag{4}$$

$$Activity\ Index_{f,t} = \alpha + \beta\ Total\ Restructure^* + \lambda\ Controls_{f,t} + \varepsilon. \tag{5}$$

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[6] $0.175 \times (3009/4430) \times (1 - 3009/4430) = 0.0381$.

Under this methodology, if an explanatory variable (i.e., an instrument) exists that predicts personal restructuring but is otherwise exogenous to corporate deal making, the product of Equation (4) "cleanses" the endogeneity problem by inducing exogenous variation in marital status. This requires finding a valid *Instrument* that is both significantly correlated to the potentially endogenous variable (corr(*Instrument*,*Total Restructure*) $\neq$ 0) and exogenous to the deal-making model (i.e., corr(*Instrument*, ε) $=$ 0). While secular marriages are common, marriage is traditionally a religious institution and, consequently, we choose *Religious CEO$_i$* as our instrument and report the first stage estimation in Model 9 of Table 3. The partial *F*-statistic of the first-stage is 368, which is greater than the critical value of 8.96 (Stock, Wright and Yogo, 2002), indicating a strong instrument that significantly explains *Total Restructure*. The fitted value from Equation (4)'s first-stage specification (i.e., *Total Restructure**) is then used in Equation (5)'s second-stage regression. Although the true error term, ε, is unobservable (Wooldridge, 2002), *Religious CEO$_i$* and Equation (5)'s residuals are not significantly correlated, which suggests that our instrument is valid. The insignificance of *Religious CEO$_i$* in Models 1–8 also suggests its validity. The results from the second stage in Model 10 of Table 3 show that personal restructuring remains positively associated with corporate deal-making activity in this framework.

4.4. Event study: CEO turnover, restructuring, and firm activity

It remains a possibility that the instrumental variables analysis has not fully addressed the potential endogeneity problem. To help resolve issues regarding unobserved heterogeneity and self-selection, our next tests focus solely on CEO successions. If personal CEO restructuring does indeed affect corporate restructuring, then one would expect turnover between CEOs with different marital statuses to be accompanied by shifts in deal-making activity. Therefore, in this section we only look at firms that experience a regime change (i.e., a CEO switch) during the sample period. Since a given CEO likely requires time to implement change, we also examine the three-year periods before and after the regime change. Thus, this analysis considers only the annual observations for the 7-year window centered on the switch—that is, three years before, three years after, and the transition year.

A CEO switch involving an increase (decrease) in marital restructuring is defined as those in which the new CEO's marital restructuring value is greater than (less than) the prior CEO's value. *IncRestructure$_{f,t}$* (*IncTotRestructure$_{f,t}$*) is a dummy variable that equals 1 for firms that hire a CEO with a higher *Restructure$_i$* (*Total Restructure$_i$*) level compared to the previous CEO. For example, considering *Restructure$_i$*, this variable would equal 1 for CEO switches from 0 to 1, 0 to 2, or 1 to 2. *DecRestructure$_{f,t}$* (*DecTotRestructure$_{f,t}$*) is a dummy variable that equals 1 for firms that hire a CEO with a lower *Restructure$_i$* (*Total Restructure$_i$*) level compared to the previous CEO. For example, considering *Restructure$_i$*, this variable would equal 1 for CEO switches from 1 to 0, 2 to 0, or 2 to 1.

The cumulative (binary) logistic regressions in Table 4, Models 1–4 (5–8) use *Activity Index*$_{f,t}$ (*Binary Activity*$_{f,t}$) for firm f at time t as the dependent variable.

$$\text{logit}[\text{Pr}(\textit{Activity Index}_{f,t} = k)] = \alpha + \beta(\textit{Marital}_{f,t} * \textit{Post}_{f,t})$$
$$+ \lambda \ \textit{Controls}_{f,t} + \varepsilon. \tag{6}$$

$$\text{logit}[\text{Pr}(\textit{Binary Activity}_{f,t} \geq k)] = \alpha + \beta(\textit{Marital}_{f,t} * \textit{Post}_{f,t})$$
$$+ \lambda \ \textit{Controls}_{f,t} + \varepsilon. \tag{7}$$

We include our standard vector of controls (*Controls*$_{f,t}$) and fixed effects from the prior tests, with the exception of *Foreign CEO*$_i$, which must be temporarily excluded due to singularity. The models now additionally contain *Post*$_{f,t}$, an annual dummy variable that equals 1 for the firm fiscal years under the new CEO's leadership (i.e., in event years 0 to +3). Thus, our primary coefficient of interest is on the interaction of the CEO marital status variables (*Marital*$_{f,t}$) and this new annual dummy: *Post*$_{f,t}$ * *IncRestructure*$_{f,t}$, *Post*$_{f,t}$ * *DecRestructure*$_{f,t}$, *Post*$_{f,t}$ * *IncTotRestructure*$_{f,t}$, and *Post*$_{f,t}$ * *DecTotRestructure*$_{f,t}$. These coefficients capture the residual effects on firm activity associated with hiring a CEO with a higher or lower personal restructuring value in the years following a regime change.

Table 4's results confirm our earlier findings and provide further support for *H1*. Regardless of any initial executive-to-firm matching that may or may not occur, hiring a CEO with a higher (lower) *Restructure* or *Total Restructure* value significantly increases (decreases) corporate restructuring in the years following the CEO switch. For example, in Model 5, hiring an incoming CEO whose ultimate marital state (*Restructure*$_i$) exceeds that of the outgoing CEO (e.g., going from single to married, single to divorced, or married to divorced), increases the probability that the firm will subsequently engage in any type of corporate restructuring (i.e., *Binary Activity*$_{f,t}$ equal to 1) by 10.46%.[7] Therefore, given these results on CEO switches, it is unlikely that unobservable existing firm policies are driving our results.

Overall, the results in this section are consistent with our first hypothesis that personal restructuring is positively associated with the likelihood of corporate restructuring. On an annual basis and also specifically surrounding CEO successions, when the CEO has engaged in more personal restructuring their firm is more likely to enter into corporate deals. Thus, marital status appears to signal an enhanced appetite in the executive suite to implement strategic changes at the firm.

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[7] $0.487 \times (1,465/2,130) \times (1 - 1,465/2,130) = 0.1046$.

Table 4

CEO succession, restructuring and firm activity

In this table, we look only at the seven fiscal years surrounding each regime change (i.e., CEO switch)—three years before, three years after, and the transition year. The cumulative (binary) logistic regressions in Models 1–4 (5–8) use *Activity Index$_{f,t}$ (Binary Activity$_{f,t}$)* as the dependent variable. *Post$_{f,t}$* is an annual dummy variable that equals 1 for the firm fiscal years under the new CEO. *IncRestructure$_{f,t}$ (IncTotRestructure$_{f,t}$)* is a dummy variable that equals 1 for firms that hire a CEO with a higher *Restructure$_i$ (Total Restructure$_i$)* level compared to the previous CEO. *DecRestructure$_{f,t}$ (DecTotRestructure$_{f,t}$)* is a dummy variable that equals 1 for firms that hire a CEO with a lower *Restructure$_i$ (Total Restructure$_i$)* level compared to the previous CEO. All other variables are defined in Table 2 and the text. Regressions include industry and year fixed effects. Maximum likelihood estimates and chi-square statistics (in parentheses) are provided below.

	Activity index				Binary activity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post$_{f,t}$	−0.108	0.051	−0.108	0.043	−0.237	−0.046	−0.237	−0.044
	(0.81)	(0.18)	(0.81)	(0.13)	(2.58)	(0.10)	(2.58)	(0.09)
*Post$_{f,t}$*IncRestructure$_{f,t}$*	**0.352				***0.487			
	(6.12)				(6.90)			
*Post$_{f,t}$*DecRestructure$_{f,t}$*		***−0.444				***−0.445		
		(10.74)				(8.17)		
*Post$_{f,t}$*IncTotRestructure$_{f,t}$*			**0.352				***0.487	
			(6.12)				(6.90)	
*Post$_{f,t}$*DecTotRestructure$_{f,t}$*				***−0.364				***−0.430
				(7.69)				(7.93)
Total Assets$_{f,t−1}$	***0.457	***0.468	***0.457	***0.470	***0.409	***0.423	***0.409	***0.426
	(185.55)	(195.70)	(185.55)	(196.92)	(94.59)	(101.57)	(94.59)	(102.74)
Cash to Assets$_{f,t−1}$	0.292	0.330	0.292	0.353	0.037	0.087	0.037	0.109
	(0.67)	(0.86)	(0.67)	(0.99)	(0.01)	(0.04)	(0.01)	(0.07)
ROA$_{f,t−1}$	***−1.846	***−1.809	***−1.846	***−1.821	*−1.174	*−1.183	*−1.174	*−1.181
	(12.17)	(11.69)	(12.17)	(11.84)	(3.53)	(3.59)	(3.53)	(3.58)

(Continued)

Table 4 (*Continued*)

CEO succession, restructuring and firm activity

	Activity index				Binary activity			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$BVMV_{f,t-1}$	−0.115	−0.139	−0.115	−0.133	−0.125	−0.174	−0.125	−0.166
	(0.29)	(0.44)	(0.29)	(0.39)	(0.26)	(0.50)	(0.26)	(0.46)
$RET_{f,t-1}$	***−0.230	***−0.225	***−0.230	***−0.226	***−0.246	**−0.239	***−0.246	**−0.239
	(8.01)	(7.66)	(8.01)	(7.69)	(6.67)	(6.30)	(6.67)	(6.28)
$Intangibles_{f,t-1}$	**−0.746	**−0.778	**−0.746	**−0.786	**−0.906	***−0.965	**−0.906	***−0.968
	(5.55)	(6.06)	(5.55)	(6.18)	(6.18)	(7.01)	(6.18)	(7.05)
$Firm\ Age_{f,t-1}$	−0.003	−0.002	−0.003	−0.003	−0.004	−0.003	−0.004	−0.004
	(1.49)	(0.92)	(1.49)	(1.08)	(1.99)	(1.23)	(1.99)	(1.35)
$CEO\ Age_{i,t-1}$	**−0.014	**−0.014	**−0.014	**−0.014	***−0.023	***−0.023	***−0.023	***−0.023
	(3.85)	(4.06)	(3.85)	(3.85)	(7.56)	(7.38)	(7.56)	(7.34)
$CEO\ Tenure_{f,i,t-1}$	−0.000	−0.001	−0.000	−0.001	0.001	0.000	0.001	0.000
	(0.00)	(0.09)	(0.00)	(0.09)	(0.07)	(0.00)	(0.07)	(0.00)
$CEO\ Ownership_{f,i,t-1}$	0.004	0.005	0.004	0.005	0.001	0.002	0.001	0.002
	(0.09)	(0.14)	(0.09)	(0.14)	(0.01)	(0.02)	(0.01)	(0.02)
$CEO\ Wealth_{i,t-1}$	0.037	0.042	0.037	0.041	−0.009	−0.004	−0.009	−0.004
	(1.92)	(2.45)	(1.92)	(2.35)	(0.07)	(0.01)	(0.07)	(0.02)
$Religious\ CEO_i$	*0.258	*0.271	*0.258	**0.298	*0.393	**0.441	*0.393	**0.467
	(2.89)	(3.23)	(2.89)	(3.93)	(3.71)	(4.78)	(3.71)	(5.39)
$Minority\ CEO_i$	0.236	0.346	0.236	0.339	0.560	0.638	0.560	0.629
	(0.46)	(1.02)	(0.46)	(0.98)	(0.97)	(1.29)	(0.97)	(1.25)
N (firm-years)	2,130	2,130	2,130	2,130	2,130	2,130	2,130	2,130

***, **, * indicate statistical significance at the 0.01, 0.05 and 0.10 level, respectively.

4.5. *Restructuring and firm activity: Additional tests*

We are careful to recognize that, in some respects, the decisions that are reflected in both *Activity Index$_{f,t}$* and *Restructure$_i$* may have conflicting implications with regard to firm size or scope. For example, mergers and marriages may be size-increasing activities whereas divestitures and divorces may be viewed as size-decreasing activities. Therefore, high values of either variable are not necessarily indicative of larger entities. Instead, higher levels of both *Activity Index$_{f,t}$* and *Restructure$_i$* may be indications of the executive's decisiveness. In other words, they represent a willingness to fundamentally alter their professional and personal environments in a manner with uncertain repercussions. We argue that these changes reflect a risk-seeking trait. In unreported tests, we bifurcate the *Activity Index$_{f,t}$* into two mini-indices (and create their corresponding binary activity counterparts) that separately track generally size-increasing and size-decreasing activities (i.e., mergers, joint ventures or strategic alliances, internal investments, debt or equity issuances, and hirings versus layoffs and divestitures, respectively). Even when corporate activities with similar size implications are analyzed separately, the paper's main results persist (i.e., personal restructuring is significantly positively related to both subindices), providing support for the idea that the relation between firm and personal restructuring illuminates a willingness to act and make bold decisions.

While divorce clearly shakes up one's personal life, some may argue that marriage early in life adds stability and is not a departure from social norms. To address this concern, we exclude CEOs who are married before the age of 30. Arguably, a bachelor (or bachelorette) CEO who gets married late in life has demonstrated a willingness to depart from their long-time personal status quo. We continue to find that our proxies for marital status are significantly positively related to corporate deal-making activity.

Finally, we acknowledge that setting "single" (i.e., *Restructure$_i$* equal to 0) as the default marital status is potentially problematic. By only classifying CEO marriages and divorces based on self-reporting, press acknowledgments, and biographical entries, there are potentially "single" CEOs that are actually married or divorced. The likelihood of such measurement error in marital status increases among CEOs who are less well known. Therefore, we first address this in our sample selection by requiring that other biographical data besides marital status be publically available for the sample CEOs. This increases the likelihood that CEOs who are labeled as single truly are single and have not simply avoided public scrutiny. We note from Greene (2002) that such measurement error in the predictor variable results in an "attenuation bias." This leads to less powerful test statistics that are biased toward insignificance, thereby working against our predictions. However, as a further robustness test, we account for this potential problem by replicating the main empirical results using only CEOs assigned *Restructure$_i$* and *Total Restructure$_i$* values of 1 or greater, thereby skipping the possibly troublesome single CEOs altogether. The paper's main findings remain robust and significantly positive at the 95% level across both subsamples. It appears

that the distinction between married and divorced marital statuses is not trivial—that is, when it comes to firm activity, the behavior of divorced CEOs differs significantly from their married counterparts and so they should not be combined into a single group. The results from the abovementioned robustness tests are not tabulated to conserve space, but are available on request.

5. Personal restructuring and risk taking

Our hypotheses regarding marital status suggest that personal restructuring might impact more than just corporate deal-making activity, but also agreed-upon CEO compensation contracts and overall firm risk. We investigate those possibilities here.

5.1. Restructuring and compensation risk

Recalling our second hypothesis, we consider our premise that marital restructuring may reflect personal risk preferences with regard to pay packages. In Table 5, we extend our inquiry by examining the variation of executives' preferences for compensation throughout CEO marital states. Since the market clearing contract is the product of bilateral negotiations between the CEO and the board, it should provide some insight as to the CEO's risk appetite.

In Table 5, various features of executive compensation packages for CEO i at time t are individually regressed using ordinary least squares regression against our standard *Controls*$_{f,t}$, our *Marital* indicators (which again alternate between the ultimate measures *Restructure*$_i$ or *Total Restructure*$_i$ and the annual measures *Restructure*$_{i,t}$ or *Total Restructure*$_{i,t}$), and industry and year fixed effects. The dependent variable, *Pay Proxies*$_{i,t}$, alternates between *PSO1Yr*$_{i,t}$, ln(1+*Delta PPS*$_{i,t}$), and ln(1+*Vega PPS*$_{i,t}$).

$$Pay\ Proxy_{i,t} = \alpha + \beta Marital + \lambda Controls_{f,t} + \varepsilon. \qquad (8)$$

After controlling for firm covariates in a regression setting, in Table 5 we show that increasing one's marital restructuring is associated with riskier selected compensation packages. For example, in Model 1 a one-unit increase in the CEO's ultimate marital state is associated with a 2.3% increase in the percentage of option pay. These results on option equity ownership are consistent with prior research on marital status (Bertaut, 1998; Bertocchi, Brunetti and Torricelli, 2011), indicating that restructuring positively influences the likelihood of owning stock in one's personal portfolio.

To more precisely measure the impact of marital status on compensation preferences, we examine the pay-for-performance sensitivities of the CEO's option portfolio with respect to stock price and risk as these tests will directly measure the rewards our sample executives receive for increasing the riskiness of their firms. Considering these models (Models 9–12 in particular), CEOs who restructure their personal lives are more highly incentivized to take risk. For example, in Model 9,

Table 5

Personal restructuring and compensation risk

This table presents the relation between CEO marital status and market-clearing compensation contracts. The dependent variables in the ordinary least squares regressions below are listed in the column headers. $PSO1Yr_{i,t}$ equals the CEO's one-year percentage pay in stock options. $Delta\ PPS_{i,t}$ is defined as the wealth sensitivity of the CEO's option portfolio to a 1% change in stock price while $Vega\ PPS_{i,t}$ is the wealth sensitivity to a 1% change in volatility. All other variables are defined in Table 2 and the text. Ultimate marital status measures include $Restructure_i$ and $Total\ Restructure_i$, whereas annual marital status measures include $Restructure_{i,t}$ and $Total\ Restructure_{i,t}$. All regressions include industry and year fixed effects. t-Statistics are provided in parentheses.

	PSO1Yr				ln(1+Delta PPS)				ln(1+Vega PPS)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Restructure	**0.023				**0.178				**0.138			
	(4.39)				(9.11)				(6.80)			
Total Restructure		**0.012	**0.020	*0.012		**0.134	**0.186	**0.149		**0.110	**0.127	**0.117
		(3.63)	(2.79)	(2.33)		(10.81)	(6.98)	(7.83)		(8.53)	(4.51)	(5.83)
Total Assets$_{f,t-1}$	**0.039	**0.039	**0.035	**0.036	**0.527	**0.527	**0.499	**0.500	**0.529	**0.527	**0.513	**0.511
	(15.59)	(15.82)	(10.45)	(10.86)	(57.12)	(57.33)	(40.65)	(41.41)	(55.12)	(55.24)	(39.62)	(40.12)
CashtoAssets$_{f,t-1}$	**0.148	**0.148	**0.138	**0.138	**0.828	**0.820	**0.812	**0.804	**0.866	**0.858	**0.894	**0.886
	(5.97)	(5.98)	(4.28)	(4.28)	(9.04)	(8.97)	(6.95)	(6.89)	(9.10)	(9.03)	(7.27)	(7.21)
ROA$_{f,t-1}$	**−0.101	**−0.102	−0.088	−0.090	**0.468	**0.469	**0.535	**0.535	**0.650	**0.652	**0.655	**0.660
	(−2.63)	(−2.65)	(−1.82)	(−1.85)	(3.30)	(3.32)	(3.04)	(3.04)	(4.42)	(4.44)	(3.53)	(3.57)
BVMV$_{f,t-1}$	**−0.246	**−0.247	**−0.236	**−0.237	**−2.042	**−2.040	**−1.976	**−1.977	**−1.184	**−1.181	**−1.094	**−1.091
	(−15.20)	(−15.26)	(−11.37)	(−11.45)	(−34.09)	(−34.15)	(−26.22)	(−26.30)	(−19.04)	(−19.03)	(−13.78)	(−13.77)
RET$_{f,t-1}$	0.012	0.012	0.010	0.010	**0.783	**0.782	**0.768	**0.768	**0.180	**0.179	**0.177	**0.176
	(1.90)	(1.93)	(1.24)	(1.28)	(34.63)	(34.66)	(27.25)	(27.29)	(7.66)	(7.62)	(5.96)	(5.93)
Intangibles$_{f,t-1}$	**0.062	**0.063	*0.062	*0.062	**0.922	**0.926	**0.864	**0.861	**0.759	**0.761	**0.859	**0.855
	(2.83)	(2.85)	(2.18)	(2.19)	(11.32)	(11.39)	(8.36)	(8.34)	(8.96)	(9.01)	(7.89)	(7.86)

(Continued)

Table 5 (Continued)

Personal restructuring and compensation risk

	PSO1Yr				ln(1+Delta PPS)				ln(1+Vega PPS)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$Firm\ Age_{f,t-1}$	**−0.001	**−0.001	**−0.001	**−0.001	**−0.006	**−0.006	**−0.006	**−0.006	−0.001	−0.001	−0.001	−0.001
	(−7.36)	(−7.28)	(−5.34)	(−5.33)	(−8.52)	(−8.39)	(−6.04)	(−5.99)	(−1.09)	(−0.98)	(−1.24)	(−1.19)
$CEO\ Age_{i,t-1}$	**−0.004	**−0.004	**−0.004	**−0.004	−0.003	−0.003	−0.003	−0.003	*−0.005	**−0.005	**−0.007	**−0.007
	(−8.31)	(−8.28)	(−7.46)	(−7.44)	(−1.48)	(−1.68)	(−1.59)	(−1.62)	(−2.55)	(−2.74)	(−3.07)	(−3.13)
$CEO\ Tenure_{f,i,t-1}$	−0.000	−0.000	−0.000	−0.000	**−0.007	**−0.007	**−0.005	**−0.005	**−0.007	**−0.007	**−0.005	**−0.005
	(−0.73)	(−0.77)	(−0.88)	(−0.89)	(−6.01)	(−6.07)	(−3.74)	(−3.80)	(−5.60)	(−5.63)	(−3.24)	(−3.30)
$CEO\ Ownership_{f,i,t-1}$	**−0.002	**−0.002	**−0.003	**−0.003	**−0.009	**−0.010	**−0.019	**−0.019	**−0.009	**−0.010	**−0.017	**−0.018
	(−3.09)	(−3.23)	(−3.87)	(−3.86)	(−3.93)	(−4.57)	(−6.96)	(−7.16)	(−3.97)	(−4.49)	(−6.11)	(−6.32)
$CEO\ Wealth_{i,t-1}$	**−0.023	**−0.023	**−0.015	**−0.015	**0.177	**0.177	**0.190	**0.189	**0.136	**0.136	**0.148	**0.147
	(−10.20)	(−10.20)	(−5.26)	(−5.27)	(21.25)	(21.27)	(17.84)	(17.77)	(15.75)	(15.76)	(13.16)	(13.10)
$Religious\ CEO_i$	0.003	0.004	*0.027	*0.029	**0.127	**0.113	**0.295	**0.287	*0.083	*0.069	**0.291	**0.276
	(0.29)	(0.44)	(2.14)	(2.27)	(3.81)	(3.41)	(6.37)	(6.20)	(2.39)	(1.99)	(5.95)	(5.65)
$Foreign\ CEO_i$	0.003	0.002	0.023	0.022	−0.019	−0.022	0.009	0.011	−0.022	−0.024	−0.020	−0.017
	(0.31)	(0.21)	(1.73)	(1.70)	(−0.48)	(−0.57)	(0.19)	(0.23)	(−0.53)	(−0.59)	(−0.40)	(−0.33)
$Minority\ CEO_i$	0.013	0.015	−0.009	−0.008	**0.273	**0.271	**0.363	**0.335	**0.293	**0.289	**0.298	**0.266
	(0.60)	(0.71)	(−0.32)	(−0.31)	(3.46)	(3.44)	(3.70)	(3.40)	(3.57)	(3.53)	(2.88)	(2.57)
N (firm-years)	7,173	7,173	4,430	4,430	7,173	7,173	4,430	4,430	7,173	7,173	4,430	4,430
Marital status	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate	Annual	Annual

***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level, respectively.

Table 6

Personal restructuring and firm risk

This table presents the relation between CEO marital status and overall firm risk. The dependent variables in the ordinary least squares regressions below are listed in the column headers. $Equity\ Beta_{f,t}$ equals the firm's unlevered and adjusted market model beta calculated over a 60-month period. The firm's $Cost\ of\ Equity_{f,t}$ is estimated from the CAPM model using the estimated equity beta. $WACC_{f,t}$ is the weighted average cost of capital computed using the firm's capital structure weights and costs of debt, equity, and preferred stock. All other variables are defined in Table 2 and the text. Ultimate marital status measures include $Restructure_i$ and $Total\ Restructure_i$, whereas annual marital status measures include $Restructure_{i,t}$ and $Total\ Restructure_{i,t}$. Regressions include industry and year fixed effects. t-Statistics are provided in parentheses.

	Equity Beta				Cost of equity				WACC			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Restructure	**0.020				**0.138				***0.155			
	(2.30)				(2.33)				(3.13)			
Total Restructure		**0.011	***0.035	***0.025		**0.079	***0.251	***0.174		***0.104	***0.304	***0.221
		(2.01)	(2.82)	(2.64)		(2.06)	(2.97)	(2.75)		(3.22)	(4.46)	(4.56)
Total Assets$_{f,t-1}$	***−0.018	***−0.018	**−0.014	**−0.013	***−0.128	***−0.126	***−0.098	**−0.091	***−0.192	***−0.192	***−0.163	***−0.157
	(−4.06)	(−4.00)	(−2.20)	(−2.11)	(−4.27)	(−4.21)	(−2.35)	(−2.25)	(−8.08)	(−8.06)	(−5.07)	(−4.99)
Cash to Assets$_{f,t-1}$	***1.277	***1.277	***1.318	***1.318	***8.457	***8.459	***8.734	***8.733	***5.149	***5.145	***5.346	***5.342
	(20.82)	(20.85)	(16.04)	(16.09)	(20.75)	(20.79)	(15.98)	(16.03)	(17.79)	(17.79)	(14.49)	(14.53)
ROA$_{f,t-1}$	***−1.134	***−1.135	***−1.130	***−1.132	***−7.634	***−7.639	***−7.558	***−7.568	***−5.135	***−5.137	***−4.958	***−4.967
	(−13.08)	(−13.09)	(−10.07)	(−10.07)	(−13.12)	(−13.12)	(−10.07)	(−10.07)	(−11.85)	(−11.86)	(−8.98)	(−9.00)
BVMV$_{f,t-1}$	***−0.274	***−0.275	***−0.276	***−0.277	***−1.972	***−1.976	***−1.976	***−1.986	***−3.296	***−3.297	***−3.304	***−3.313
	(−8.30)	(−8.32)	(−6.33)	(−6.36)	(−8.91)	(−8.92)	(−6.72)	(−6.75)	(−19.78)	(−19.78)	(−15.31)	(−15.35)
Intangibles$_{f,t-1}$	0.020	0.021	−0.017	−0.016	−0.001	0.003	−0.255	−0.252	0.073	0.076	−0.069	−0.068
	(0.55)	(0.57)	(−0.36)	(−0.35)	(−0.01)	(0.01)	(−0.80)	(−0.79)	(0.35)	(0.37)	(−0.26)	(−0.25)

(Continued)

Table 6 (*Continued*)

Personal restructuring and firm risk

	Equity Beta				Cost of equity				WACC			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
$Firm\ Age_{f,t-1}$	***−0.003	***−0.003	***−0.003	***−0.003	***−0.019	***−0.019	***−0.022	***−0.022	***−0.016	***−0.016	***−0.019	***−0.019
	(−10.55)	(−10.52)	(−8.66)	(−8.67)	(−10.79)	(−10.76)	(−8.94)	(−8.95)	(−10.46)	(−10.40)	(−9.12)	(−9.10)
$CEO\ Age_{i,t-1}$	***−0.002	***−0.002	***−0.003	***−0.003	***−0.017	***−0.017	***−0.023	***−0.023	***−0.013	***−0.013	***−0.018	***−0.018
	(−3.03)	(−3.04)	(−3.16)	(−3.16)	(−3.17)	(−3.17)	(−3.34)	(−3.34)	(−2.97)	(−3.02)	(−3.18)	(−3.18)
$CEO\ Tenure_{f,i,t-1}$	**0.001	**0.001	**0.001	**0.001	**0.007	**0.006	**0.009	**0.009	**0.005	**0.005	**0.008	**0.007
	(2.47)	(2.45)	(2.53)	(2.50)	(2.37)	(2.35)	(2.42)	(2.40)	(1.99)	(1.97)	(2.44)	(2.40)
$CEO\ Ownership_{f,i,t-1}$	−0.000	−0.000	0.000	0.000	0.001	0.001	0.004	0.003	*0.010	0.009	*0.013	*0.012
	(−0.15)	(−0.24)	(0.25)	(0.22)	(0.17)	(0.08)	(0.39)	(0.36)	(1.70)	(1.52)	(1.81)	(1.74)
$CEO\ Wealth_{i,t-1}$	0.002	0.002	**0.011	**0.011	0.011	0.011	**0.068	**0.067	0.014	0.014	*0.052	*0.052
	(0.52)	(0.52)	(2.14)	(2.13)	(0.42)	(0.42)	(2.00)	(1.99)	(0.67)	(0.66)	(1.87)	(1.84)
$Religious\ CEO_i$	0.014	0.014	*−0.033	−0.032	0.085	0.089	*−0.205	−0.199	0.020	0.015	***−0.341	***−0.341
	(1.13)	(1.20)	(−1.86)	(−1.84)	(1.06)	(1.11)	(−1.72)	(−1.68)	(0.28)	(0.22)	(−3.42)	(−3.43)
$Foreign\ CEO_i$	**0.047	**0.046	*0.042	*0.042	**0.289	**0.284	0.262	0.261	**0.222	**0.218	0.152	0.151
	(2.51)	(2.46)	(1.77)	(1.76)	(2.33)	(2.29)	(1.63)	(1.62)	(2.33)	(2.27)	(1.23)	(1.23)
$Minority\ CEO_i$	0.040	0.042	0.050	0.047	0.209	0.220	0.247	0.231	0.002	0.007	0.093	0.065
	(0.89)	(0.93)	(0.79)	(0.75)	(0.70)	(0.74)	(0.60)	(0.55)	(0.01)	(0.03)	(0.29)	(0.20)
N (firm-years)	7,173	7,173	4,430	4,430	7,173	7,173	4,430	4,430	7,173	7,173	4,430	4,430
Marital status	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate	Annual	Annual	Ultimate	Ultimate	Annual	Annual

***, **, and * indicate statistical significance at the 0.01, 0.05 and 0.10 level, respectively.

increasing *Restructure$_i$* by one-unit increases *Vega PPS$_{i,t}$* by 14.8%.[8] Therefore, relative to the low-restructuring executives, high-restructuring CEOs choose overall riskier pay packages. These results are consistent with *H2* that personal restructuring is positively associated with a preference for compensation contracts that incentivize risk.

5.2. Restructuring and firm risk

Our contention that personal executive risk preferences relate to observable marital status began with an investigation into the relation between marital status, firm activity, and compensation risk. We conclude our study by turning to the relation, if any, between marital status and overall systematic firm risk as measured by the sample firms' equity beta and costs of capital. Therefore, in our final table, we use the ordinary least squares regression model in Equation (9) to regress each of our measures of overall firm risk against CEOs' marital states while utilizing the same firm, year, and industry controls in the earlier tables.

$$Firm\ Risk_{f,t} = \alpha + \beta Marital + \lambda Controls_{f,t} + \varepsilon. \tag{9}$$

Firm Risk$_{f,t}$ is either the *Equity Beta$_{f,t}$*, *Cost of Equity$_{f,t}$*, or *WACC$_{f,t}$* for firm *f* at time *t*. *Marital* is the marital status of the CEO (rotating between the ultimate measures *Restructure$_i$* or *Total Restructure$_i$* and the annual measures *Restructure$_{i,t}$* or *Total Restructure$_{i,t}$*) and *Controls$_{f,t}$* is our standard battery of controls.

Looking at the results in Table 6, the marital state of the CEO leading firm *f* in year *t* is significantly and positively related to all of the measures of firm risk. For example, a one-unit increase in *Restructure$_i$* in Models 1 and 3 are associated with an increase in the equity beta by 0.020 and 0.035, respectively. At sample means, this represents a 2–3.5% increase in overall firm risk. Thus, personal marital restructuring is linked to an increase in the systematic risk of the firm. Furthermore, consistent with the notion that, in an efficient market, investors will charge higher costs of capital for riskier firms, we also find that the costs of equity and the overall weighted average cost of capital are increasing with both ultimate and annual marital states. In Model 9, our parameter estimates imply that a one-unit increase in *Restructure$_i$* leads to a 0.155% increase in the firm's weighted average cost of capital. These results are consistent with *H1*, which states that personal marital restructuring should be positively related to the riskiness of the firm.

6. Conclusion

While the impact of family structure on personal portfolios continues to be of interest, the corporate finance repercussions are largely unexplored given the dearth

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[8] $\exp(0.138) - 1 = 0.148$.

of executive-level evidence on the topic. In this paper, we add to the literature on managerial effort and behavioral biases by extending the analysis to new subjects and by helping resolve the uncertainty surrounding the relation between matrimony and risk aversion. In particular, we hypothesize that personal life restructuring may reveal risk preferences that also impact firm restructuring.

After gathering biographical data for CEOs of large domestic companies, we find that corporate deal-making activity systematically increases with CEOs' ultimate and annual marital states. Our evidence indicates that CEOs who have undergone more personal life upheavals are more prone to engage in corporate deal-making activity (e.g., mergers and acquisitions). A CEO turnover event study reaffirms this discovery, revealing that when a firm hires a CEO who has experienced more personal restructurings than its former leader, the likelihood of firm restructurings subsequently increases. Similar results are obtained when using an instrumental variables analysis to account for endogenous CEO selection.

Finally, while the link between personal and corporate restructuring may be rooted in unobservable traits such as managerial decisiveness, we present evidence that our observable proxies signal risk preferences that play a substantial role in other corporate policies. Specifically, we discover that CEOs who undergo more personal life upheavals select riskier compensation packages and lead firms with higher levels of systematic risk and costs of capital. Since the level of CEO risk aversion is known to affect value, the identification of observable characteristics linked to risk tolerance may improve shareholder wealth.

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