

The Interaction of Implied Contracts and Organizational Turbulence with Managers' Base Pay

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Abstract

This study sampled 403 managers from 20 Fortune 500 companies to investigate whether there is a relationship between the type of implied contracts existing in an organization and the salary increases managers receive following periods of organizational turbulence. We hypothesized that after a period of turbulence, organizations which offer relational implied contracts to their managers (compared to transactional implied contracts) would reward these managers with larger base pay increases to compensate them for their loss of job security. A competing hypothesis based on traditional economic theory was also tested. The results supported our hypotheses. We also examine the relation of implied contracts with base pay, regardless of the level of organizational turbulence.

Introduction

In an era when organizations are under increasing pressure to trim the fat and operate with the leanest staff as possible, some management scholars (e.g., Handy, 1989; Hirsch, 1987, 1993) and the business press alike (e.g., *Fortune*, 6/13/94) are arguing that the organizational implied contract of guaranteed employment in exchange for employee loyalty has been irrevocably broken. Under pressure to downsize and delayer, organizations can no longer provide job security for their managers, and managers can no longer expect to pursue

their lifetime careers within a single organization. According to a *Fortune* article entitled "The New Deal," these changes have caused a decline in employee loyalty to their employers: "Loyalty? Job security? They're nearly dead." (6/13/94, p. 44).

However, in contrast to the predictions of Handy (1989), Hirsch (1987, 1993), and *Fortune*, Reilly, Brett, and Stroh (1993) found no negative relationship between employee loyalty and organizational turbulence (which is defined as nontrivial, rapid, and discontinuous change in an organization (Cameron, Kim, & Whetton, 1987)). Their findings raise the possibility that

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other factors may be at work. One such factor is managerial compensation: Organizations may be paying their managers more to compensate for the loss of job security engendered by turbulence such as mergers and downsizings. In this study, we investigate whether organizations are using base salary as a means to adjust the employer/employee implied contract in the face of turbulent organizational change. We also examine whether different types of implied contracts (relational versus transactional) are associated with different compensation strategies following organizational turbulence.

We have chosen to focus on base salary because it is such an important barometer of an organization's commitment. Unlike a bonus or other forms of variable pay, an adjustment in the level of base compensation is a signal that the organization has committed itself to a series of long-term salary expenditures. A tangible change in base compensation may also send a stronger message to the employee than a change in job structure or job assignment. (For a more complete discussion of the relationship between rewards and performance see Opsahl & Dunnette, 1966; Arnold, 1985; Verespej, 1992; Feldman & Arnold, 1983; Deci, 1971, 1975; Staw, 1975).

Implied Contracts: Relational Versus Transactional

One way to characterize the employment relationship between employer and employee is to use the concept of an implied contract to describe the nature of the implied exchange relationship. Implied employment contracts range along a continuum from relational to transactional (Rousseau & Parks, 1993). Doeringer (1991) suggests that it is possible to deduce an organization's human resource strategies from the degree to which its implied contracts with managers are relational or transactional. Those strategies that are based primarily on relational contracts, he labels "guaranteed employment" strategies; those that are based predominantly on transactional contracts, he labels "employment at will."

Relational contracts thus imply a long-term employment relationship. They are open-ended; concrete employee behaviors (such as working overtime hours) may not be specified in advance, and performance standards are left ambiguous. In organizations with relational contracts, managers' loyalty is rewarded by secure--if not guaranteed--employment. Organizational benefits of relational contracts are low selection and turnover costs and the ability to maintain an organizational culture through extensive, long-term socialization (Bills, 1987).

In contrast, organizations which adopt a transactional implied contract between employer and employee fit a different mold. Transactional contracts are close-ended; concrete behaviors are specified in advance, and performance standards are specific: managers exchange specific performance for specific rewards. The archetype of the transactional contract exists in the spot labor market for some day laborers.

Linking Organizational Turbulence and Implied Contracts

The link between organizational turbulence (such as mergers and downsizings) and changes in an organization's HR practices is well established in the organizational theory literature (e.g., Aldrich, 1979; Dess & Beard, 1984; Lawrence & Lorsch, 1967). Both managers and organizations may respond to turbulence by adjusting their respective sides of the implied contract (Stroh, & Reilly, 1994). We argue that these adjustments should vary, depending on the type of implied contract predominant in a particular organization.

Because organizations espousing transactional contracts have never committed to their managers' employment security, such organizations need minimal adjustments to their implied contract during periods of increased turbulence. Any adjustments that are required, such as changes in job requirements, are "handled routinely" according to Doeringer (1991, p. 8), as is normal when conditions change in employment-at-will organizations.

In relational contract organizations, however, turbulence may have a more dramatic effect on the employer/employee implied contract. Turbulence affects these organizations' managers by increasing their uncertainty about their employment security and their long-term relationship with their employer. Downsizing, for example, gives managers the message that no job is safe in the long run; mergers, that people will inevitably be laid off, since two people are not needed to fill the same position.

Responding to Turbulence with Changes in Base Pay

Theorists who study changes in compensation over time (e.g., Leonard, 1990) argue that base pay changes slowly in response to individual, organizational, and industry-level variables. A change in base salary should reflect long-term organizational strategy and thus be less responsive to short-term financial performance. In contrast, a change in variable pay (such as a bonus) is a short-term adjustment associated with the organization's financial performance (Kerr & Bettis, 1987; Stroh, Brett, Baumann, & Reilly, 1996). Our focus here is on base pay, because we believe a change in base pay, which commits an organization to a series of long-term salary expenses, communicates a longer term message to a manager than a one-time bonus.

Under conditions of turbulence, we predict relational versus transactional organizational differences will be associated with corresponding differences in base pay changes. We expect organizations which value a long-term relational implied contract of guaranteed employment to offer their managers some remuneration for riding out turbulence and its concomitant loss of job security, disruption to promotion ladders, etc. Managers in guaranteed employment organizations may have chosen to work for such organizations at least in part because the stability and predictability appealed to them (Schneider, 1987). An increase in base pay thus may compensate the managers for the breach of the implied contract and signal the organizations' long-term commitment to its managers. A salary in-

crease may also serve to exchange one extrinsic motivating factor (pay) for another (job security) (Deci, 1971, 1975; Staw, 1975).

In contrast, organizations characterized by a short-term transactional employment relationship typically trade base pay for short-term performance rather than long-term commitment. Thus, we would not expect employment-at-will organizations to adjust the base salary of their managers following periods of turbulence.

This argument led to the following hypothesis:

Hypothesis 1: Organizational turbulence will be strongly and positively associated with managers' base salary increases in organizations with relational contracts and more weakly related in organizations with transactional contracts.

A counter argument to our hypothesis, however, comes from traditional economic theory (Rozen, 1991). Because of the relatively high levels of turbulence in the U.S. economy during the period of this study, managers across many organizations and industries were laid off--and thus were on the job market--and the macroeconomic environment in general had become less favorable. Consequently, regardless of the level of turbulence in an individual organization, the overall bargaining power of employed managers was presumably attenuated, thereby holding down base pay. Indeed, the financial costs of turbulence might have prompted organizations to freeze or lower managers' base salaries. We thus also consider the following competing hypothesis:

Hypothesis 2: Organizational turbulence will be negatively related to changes in managers' base salaries.

We anticipate that the level of raises may also be influenced by organizational turbulence as well as the type of implied contract predominant in an organization. At the extreme, dramatic change in the business environment might lead to a major reversal of past organizational

trends. Handy (1989), for example, asserts that in the future, organizations will be very small, and most work will be done by independent subcontractors who are essentially self-employed. Under such conditions, organizations with prior guaranteed employment strategies might choose to shift to employment-at-will strategies. Equity theory would predict that current managers accustomed to relational contracts might resist such change by lowering their performance. In an effort to replace these managers with less risk-averse and higher-performing managers from the large pool of available labor, the organizations might want to drive these managers out by paying lower salaries. We would expect, therefore, that these organizations would give smaller salary increases than employment-at-will organizations.

This discussion is reflected in the following hypotheses:

Hypothesis 3: Managers in organizations with relational contracts will receive lower salary increases than managers in organizations with transactional contracts.

Hypothesis 3a: In organizations with relational contracts, the level of turbulence will be negatively associated with the amount of managers'

salary increases; the relationship between turbulence and salary increases will be weaker in organizations with transactional contracts.

Method

The opportunity to conduct this study occurred as a result of a larger study of managers in Fortune 500 corporations who had recently been transferred. As part of that study, we had identified industries that had experienced varying degrees of turbulence over the past five years and had selected at least two target companies to represent each industry.

Sample

The sample included 403 managers from 20 Fortune 500 companies in eight industries: pharmaceutical/hospital supplies, communications, consumer products (food), professional and financial services, retailing, hotel, chemical, and manufacturing. The firms (see Table 1) ranged in size from 4,000 to 275,000 employees. The mean number of employees was 65,000, and average annual revenues were \$12.2 billion.

In 1989, we surveyed the attitudes of lower- and middle-level managers at these 20 companies who had been transferred within the

Table 1
Characteristics of Organizations in Sample By Industry

Primary Industry	Number of Organizations in Sample from Industry	Average 1991 Sales (in Billions)	Average Number of Employees	Number of Managers in Analysis from Each Industry
Pharmaceutical	2	8.1	51,392	46
Communications	4	25.3	121,659	72
Foods/Consumer Products	3	47.7	13,946	46
Financial Services	2	10.0	25,090	27
Retail	1	17.3	180,000	17
Hotel	2	8.3	146,757	31
Chemical	3	15.8	23,042	77
Manufacturing	3	11.0	45,917	87

prior two years (1987 and 1988). Surveys were mailed to the homes of 50 randomly selected managers from each firm taken from lists of transferred managers that each company provided. The response rate with one phone call was 67% (n=670).

We were concerned that our sample might have been affected by discrimination associated with job transfer opportunities and thereby under-represent singles, females, and managers with children in dual-career families. Therefore, after removing the names of the first 50 randomly selected managers from each firm, we randomly selected as many as 150 additional managers from each company's list. We sent these managers a letter asking them to participate in the study if they fit into one of our special categories. This process increased the sample by 359 managers for a total of 1,029.

Two years later, in 1991, we again sent surveys to the homes of our 1,029 respondents. With one follow-up phone call, we received 720 responses, for a response rate of 70%. After dropping cases with missing data (n=114) and managers who were not with the same employer for the entire period of interest (1984-91; n=186), we were left with a sample size of 403. Table 1 presents the demographic characteristics of this sample.

The average age of the 1991 respondents was 37 years in 1989. Our 1991 respondents tended to be older than those who did not respond to the 1991 survey (37 years old in 1989 versus 35 in 1989, $t=3.45$, $p<.01$) and were more likely to have been married in 1989 (80%, compared to 69% of the 1991 nonrespondents, $X^2=20.17$, $p<.01$). The 1991 respondents also had had more children in 1989 than the 1991 nonrespondents (1.05 versus 0.86, $t=2.41$, $p<.05$). Finally, those who responded to our 1991 survey had longer tenure in 1989 than the nonrespondents (10.75 years with their organizations compared to 9.11 years, $t=3.36$, $p<.01$). These differences probably reflect the greater stability of older, married managers with children and hence a greater ease in locating them

two years later.

In both samples (1989 and the 1991 subsample), 78% of the managers were male and 95% were white. Most of the managers in both samples had college degrees (64%). The mean number of geographic moves for the sample was 3.92, the mean number of organizations for which respondents had worked was 2.45, and the average number of jobs held in the course of their careers was 5.93. A higher percentage of the respondents worked in sales/marketing (36.5%) than any other industry; the next highest percentage worked in finance (10.7%). Importantly, there were no significant differences in the 1989 salaries of the 1991 respondents and nonrespondents.

Measures

Change in managers' base pay

This variable was measured at the individual level (n = 403). In 1989, the managers in our sample were asked to report their base salaries for 1989, 1988, and 1984. In 1991, they were asked their salaries in that year. The change in base pay was computed by taking the difference between the 1991 salary and the 1984 salary and dividing this difference by the 1984 salary. We took the natural log of this proportion to achieve linearity (Tukey, 1977). Transformation of the data in this fashion can help make a distribution more normal, as well as make the relationship with other variables more linear.

The independent variables, which are explained below, were measured in 1989 (1984 and 1989 in the case of turbulence). We measured change in compensation from 1984 to 1991, as measures of compensation are generally lagged from their explanatory variables (Leonard, 1990). For our purposes, the time lag of two years should have given the organizations time to respond to experienced turbulence. We would not expect an organization to increase compensation during an episode of turbulence, but after two years had passed, the organization

Table 2
Demographic Characteristics of Sample

Characteristic	1991 Respondents (n=720)	1991 Nonrespondents (n=309)	Statistic	Study Sample (n=403)
Sex				
Male	78%	78%	$X^2=.013$	82%
Female	22	22		18
Age (in 1989)	37.1 years	35.3 years	$t=3.45^{**}$	38 years
Education				
High School	3.8%	2.6%	$X^2=.213$	3.3%
Some College	13.4	11.7		13.3
College graduate	60.6	64.2		58.5
Master's degree	18.9	19.5		21.6
Other degree	3.3	1.9		3.3
Marital Status				
Married, cohabiting	79.7%	68.8%	$X^2=20.17^{**}$	81%
Unmarried	20.3	31.2		19
Number of Children	1.06	.86	$t=2.41^*$	1.15
Race				
White	94.8%	95.8%	$X^2=2.09$	95.5%
Black	1.5	1.6		1.4
Other	3.5	2.6		3.1
Functional Area				
Sales/Marketing	36.5%	38.6%	$X^2=7.82$	36.1%
Engineering	8.9	8.8		7.5
Production	8.7	7.5		8.7
Research	3.6	4.3		3.8
Accounting/Finance	10.7	9.5		11.6
Computers/Systems	5.0	3.6		4.2
Admin./HR	11.2	15.4		13.2
Other	15.0	11.8		14.9
Tenure with 1989 employer	10.8 years	9.1 years	$t=3.36^{**}$	11.4 years
Number geographic moves	3.93	3.90	$t=0.18$	4.10
Number of employers	2.48	2.37	$t=1.00$	2.46
1989 salary	\$58,646.00	\$55,636.00	$t=1.24$	\$62,210.00
1989 job level				
Non-management	17.6%	18.0%	$X^2=0.035$	---
Lower management	27.0	27.1		31.3
Middle management	45.7	45.1		58.1
Upper management	9.7	9.7		10.6

* $p<.05$; ** $p<.01$

should have had time to adjust its relationship with the managers who had "survived."

Organizational Turbulence

We used archival data summarized in the Predicasts F&S Index, U.S. Annual Editions, to measure the changes experienced by the companies in our sample. All the firms were large organizations whose activities were regularly tabulated by Predicasts (Stroh, Brett, & Reilly, 1994). Turbulence was thus measured at the organizational level ($n = 20$).

Our archival measure of organizational turbulence was generated by tabulating and counting (Miles & Huberman, 1984) the relevant entries in Predicasts for 1989 (the year of the first wave of survey data collection) and for 1984 (the earliest year in which managers were asked to report their compensation). The following categories of changes were counted for each organization in our study: reduction in force, sale or spinoff of assets/operations, leveraged buyout, acquired by another company, merger, joint venture, and attempted takeover. Multiple articles indexed in Predicasts about the same change were counted only once. To ensure data reliability, a second independent coder was used to spot-check the content coding and counting. Intercoder reliability was 83% for the 1989 coding and 80% for the 1984 coding. When coders disagreed, they discussed the discrepancy until they reached consensus. An index for each year was formed by first summing the number of changes in each category and then summing across categories (Stroh, et al, 1994). The organization-level correlation between turbulence in 1989 and turbulence in 1984 was very high ($r=.81$, $p<.001$), so the two turbulence measures were summed to form an index of overall turbulence. A natural log transformation was applied to correct for skewness in the index.

Implied Contracts

To operationalize implied contracts in this data set, we conducted a maximum likelihood factor analysis on data from the 1,029 sur-

veys from 1989. The data included a number of variables mentioned by Sonnenfeld and his colleagues (Sonnenfeld & Peiperl, 1988; Sonnenfeld, Peiperl, and Kotter, 1988) that were anticipated effects of a relational versus a transactional implied contract: perceived job security, organizational loyalty, and loyalty to one's career. The factor analysis is presented in the Appendix. The maximum likelihood chi-square supported the hypothesis that one factor was underlying the variables ($X^2=478.6$, $df=20$; $p<.001$).

For the purposes of this study, an index of the organizational-level implied contract was constructed as follows for each company participating in the study. First, a measure of the type of implied contract was constructed for each manager ($N=1,029$) who participated in the 1989 survey. Since the items comprising the index were on different scales (some were single items measured on five-point scales, while others were scales formed by summing a number of items measured on five-point scales), the items were transformed into z-scores. Items loading .40 or higher on the factor were then used to construct the implied contract index. With the sample size in this study, we can be assured that a factor loading of .40 is statistically significant with a conservative test (Gorsuch, 1983).

Second, the contract index was aggregated to the organizational level. But before the index was aggregated, an analysis of variance was conducted on the entire sample of 1,029 managers to confirm that different organizations had different means on the index (cf. James, 1982). The F tests indicated that organizations did differ significantly on their means for the implied contract index ($F_{19,930}=5.58$, $p<.001$). The analysis of variance showed that managers' implied contracts with their organizations were more similar within than between organizations.

Third, managers were assigned the value of their organization's mean for the index. An aggregation is justified, according to James (1982), when the variable of interest is an organizational policy rather than a construct that exists only at the level of individual perceptions.

Our operationalization presumed that the implied contracts in organizations are reflected in the career experiences of their managers.

The variables used to construct the implied contract index were the organizational loyalty scale (Patchen, 1965), the career loyalty scale (Reilly, et. al., 1993), and a number of individual judgments on a five-point Likert scale: "This division shows real concern for its people"; "In this division, people are treated as more important than things"; "Employees are carefully trained and developed over time in this division"; "This division has extensive employee and management training and development programs"; "The job security is good"; and the number of years the manager expected to work for the company. These somewhat indirect measures were used because questionnaire items about implied contracts were not available on the employee surveys; however, implied contracts are such that it should be possible to infer their content from relatively indirect signals such as those used here (Rousseau, 1989). The coefficient alpha for the scale was .81. High (positive) values correspond to a more relational contract (the organization provides job security and opportunities for development); low (negative) values correspond to a more transactional contract (the organization provides neither job security nor opportunities for development).

Analysis

Our hypotheses were tested using moderated hierarchical regression. The main hypothesis proposes an interaction, but, as is customary with field data, main effects were tested first and the interaction was entered in the second step of the analysis (Arnold, 1982; Cohen & Cohen, 1983; Zedeck, 1971). Included as control variables were three variables measured at the individual level: the manager's level in the organization, the number of promotions received since 1984, and a dummy variable indicating the gender of the manager; and two variables at the organizational level: organization size (measured as the natural log of the number of employees), and industry (measured using seven dummy vari-

ables to represent the eight industries that were sampled. Manufacturing was chosen to be the reference category.).

Level was included as a control variable because of the possibility that changes in compensation might be correlated with management level. Promotion was included in the analysis because of the possibility that organizations undergoing turbulence might promote managers either more quickly or more slowly. Gender was included because pay increases may not be comparable between male and female managers (Stroh, et al., 1994). The size of the organization was controlled because larger organizations might be more turbulent, while simultaneously having more "slack" to distribute in the form of pay increases. Industry was controlled based on the assumption that different industries might have different pay policies that would affect managers' salary progression (Gerhart & Milkovich, 1990).

Results

The means and standard deviations of the variables, as well as the zero-order correlations between the variables, are shown in Table 3. Note that the intercorrelations between the industry dummy variables are not presented since they must, of necessity, be mutually negatively correlated insofar as classification in one industry precludes classification in another.

The size of the organization was correlated with the hierarchical level of its managers ($r=.15$, $p<.01$), suggesting that proportionately more of the respondents from larger organizations were from higher levels of management. Promotion was also positively correlated with salary increases ($r=.30$, $p<.001$). Turbulence had a modest positive correlation with gender ($r=.13$, $p<.01$), indicating that more turbulent organizations, for some reason, had more female managers. The correlation between the key organizational-level variables (e.g., turbulence and the type of implied contract) was not significant; this is advantageous, because interactional hypotheses are tested most cleanly when interacting

variables are not correlated (Cohen & Cohen, 1983).

The level of salary received by managers in 1984 provides a baseline that enables their salary increases by 1991 to be interpreted more accurately. For simplicity, we performed a median split on the implied contract index and then plotted managers' 1984 compensation against their organizations' dichotomous scores on the implied contract index.

We found that managers in organizations with transactional contracts received higher salaries in 1984 than managers in organizations with relational contracts (Mean transactional = \$42,962, sd=18,708; Mean relational=\$37,890, sd=23,059; t=2.57, df=401, p 2-tailed < .01). One possible explanation for this finding could be that managers with relational contracts forfeit salary in exchange for more secure employment, whereas managers in transactional organizations are paid a risk premium in exchange for having less security (Rozen, 1991).

Regression results testing the hypotheses are presented in Table 4. The dependent variable was change in salary operationalized as the natural log of the percentage change in salary from 1984 to 1991. In the first step of the hierarchical regression, we entered the type of implied contract that existed (as a continuous measure), level of turbulence, and the control variables: sex, job level, promotion, organizational size, and the seven industry dummy variables (pharmaceutical, communications, food, financial services, retail, hotel, and chemical). The adjusted R squared for this equation was significant ($F_{13,389}=7.92$; $p < .001$; $R^2 \text{ adj}=.16$).

Significant coefficients were obtained for promotion (Beta=.29, $p < .001$), the retail industry (Beta= -.15, $p < .01$), the hotel industry (Beta=.15, $p < .01$), and the financial services industry (Beta=.22, $p < .01$). Managers who received more promotions since 1984 received higher compensation increases than those who received fewer promotions. Further, managers in larger organizations increased their manager's

Table 3
Means, Standard Deviations, and Correlations^a

Variable	Mean	SD	1	2	3	4	5	6	7
1 Pay Increase	-0.28	0.72		--	--	--	--	--	--
2. Contract Type ^b	0.01	2.33	.00		-.16	.11	--	--	--
3. Turbulence	1.57	0.97	.02	--		.53	--	--	--
4. Org. Size ^c	3.51	1.22	-.09	--	--		--	--	--
5. Sex ^d	0.17	0.38	.06	-.04	.13**	.08		--	--
6. Promotion ^e	1.68	1.18	.30**	-.00	.07	.11	.07		--
7. Job level	2.80	0.61	.03	.06	.01	.15**	-.01	.05	

^a The matrix above the main diagonal reports correlations between the organization-level variables (N=20); the matrix below the main diagonal reports correlations between individual-level variables as well as cross-level relationships (N=403).

^b Positive values of Contract Type denote a relational implied contract; negative values denote a transactional implied contract.

^c Natural log of the number of employees, in thousands.

^d Males are coded as 0; Females are coded as 1.

^e Number of promotions between 1984 and 1991.

** $p < .01$ (2-tailed).

Table 4
Regression Results
Dependent Variable: Natural Log of % Salary Increase
from 1984 to 1991

Variables entered	Model 1	Model 2
Contract Type ^a	-.04	-.16*
Turbulence	.01	.17*
Org. Size ^b	-.11	-.08
Sex ^c	.06	.04
Job Level	.04	.05
Promotion ^d	.29**	.29**
Chemical	-.07	.00
Financial	.22**	.27**
Pharmaceutical	.09	.13*
Retail	-.15**	-.11
Hotel	.14**	.19**
Communications	-.04	.06
Foods	.02	.14*
Turbulence x Contract Type		.25**
Multiple R	.42	.43
R2	.18	.19
Adj R2	.16	.17
Change in R2		.01**
F change	7.91**	6.29**
Degrees of Freedom	(13, 389)	(14, 388)

* $p < .05$; ** $p < .01$; $N = 403$

^a Positive values of Contract Type denote a relational implied contract; negative values denote a transactional implied contract.

^b Natural log of the number of employees, in thousands.

^c Males are coded as 0; Females are coded as 1.

^d Number of promotions between 1984 and 1991.

compensation less than managers in smaller organizations. Managers in the financial services and hotel industries increased their compensation more quickly than their counterparts in manufacturing, while managers in the retail industry increased their compensation less quickly than managers in manufacturing.

In the second step, we entered the two-way interaction between turbulence and the type of implied contract that existed (turbulence contract type). The change in R squared was

significant ($F_{14,388} = 6.30$; R^2 change = .01; $p < .001$), as was the equation as a whole ($F_{14,388} = 7.88$; $p < .001$; R^2 adj = .17). Variables with significant regression coefficients were: contract type (Beta = -.16, $p < .05$), turbulence (Beta = .17, $p < .05$), promotion (Beta = .29, $p < .001$), financial services (Beta = .27, $p < .001$), pharmaceutical (Beta = .13, $p < .05$), hotel (Beta = .19, $p < .001$), foods (Beta = .14, $p < .05$), and turbulence x contract type (Beta = .25, $p < .01$).

The results supported Hypothesis 1 but not Hypothesis 3a: organizations with relational contracts gave their managers larger increases when there was relative turbulence. Since positive values for contract type indicate the existence of a relational contract, the positive beta for the interaction between contract type and turbulence indicates that compensation rates at organizations with relational contracts increased more rapidly under conditions of turbulence.

The results did not support Hypothesis 2: the level of organizational turbulence was actually positively related to whether managers' salaries increased.

The results also support Hypothesis 3: the negative beta of the main effect for contract type indicates that, in general, regardless of level of turbulence, organizations with transactional contracts increased their managers' compensation more than organizations with relational contracts.

It should be noted that the overall R squared for the regression equation was $R^2 = .19$ (R^2 adj = .17). Although the results of the regression supported the hypotheses, there are im-

portant influences on managers' compensation other than those studied here.

Discussion

The results of our study are summarized in Table 5. Our research suggests that the organizational turbulence characteristic of the 1980s and 1990s may be associated with a reversal in compensation policy: organizations that have had relational contracts with their managers increased their levels of compensation proportionately more during periods of rapid organizational change, while those with transactional contracts increased their levels of compensation more rapidly during periods of relative stability.

Furthermore, the crossover interaction rules out a number of competing explanations for the data. For instance, if the interaction were significant but without the crossover (meaning that the main effects either were not significant or were in the same direction as the interaction

effect), a parsimonious explanation might be that certain types of organizations generally increase their managers' compensation rapidly, especially following times of turbulence, when they know they have been asking a lot from their managers. Instead, we see specifically that the organizations with relational contracts gave higher salary increases following turbulence and those with transactional contracts gave higher salary increases when the organization has been more stable. While this study did not test causal order, the opposite causal direction (e.g., changes in compensation policy cause contingent changes in organizational stability and HR policies) seems unlikely, although a spurious relationship may, of course, exist.

Interestingly, the managers with transactional contracts, whose wages were higher in 1984 than the managers with relational contracts, seemed to continue to move ahead of the managers with relational contracts even when their counterparts' organizations were relatively sta-

Table 5
Summary of Study Hypotheses and Results

	Relational Implied Contracts	Transactional Implied Contracts	Study Results
Hypotheses:			
<i>The Greater the Turbulence.....</i>			
1	Strongly and Positively Related with Salary Increases	Weakly Related	Supported
2 (competing)	Negatively Related with Salary Increases	Negatively Related	Not Supported
<i>Regardless of the Level of Turbulence.....</i>			
3	Lower Salary Increases	Higher Salary Increases	Supported
<i>The Greater the Turbulence.....</i>			
3a	Strongly and Negatively Related with Level of Salary Increases	Weakly Related	Not Supported

ble. Because of the relatively high levels of insecurity in the economy, the managers in the companies with relational contracts may have been especially willing to sacrifice pay for security during this time period (1984-91). When the turbulence was relatively high, however, the managers in organizations with guaranteed employment received larger increases, allowing them to close the gap somewhat. This pattern seems similar to the pattern found in research on layoffs and absenteeism (Steers & Rhodes, 1984): employees are willing to make more concessions (e.g., to maintain lower rates of absenteeism or accept lower raises) when general conditions in the labor market are poor (e.g., layoffs or turbulence), but they start taking back their concessions when the conditions threaten to affect them directly.

That organizations with relational contracts give comparatively larger increases in times of turbulence suggests that these organizations are not willing to abandon their long-term commitment to their managers. Thus, as employment security becomes more uncertain, these organizations may increase base pay as one way of remunerating their managers for breaching the implied contract. This increase may be a first step toward restoring the trust that is needed to maintain long-term relational contracts between organizations and their employees (Rousseau, 1989; Rousseau & Parks, 1993).

By contrast, in organizations with transactional contracts, managers are never led to expect stability. Consequently, remuneration for sacrifice during periods of turbulence is not necessary, since an implied contract regarding job security has not been breached. These organizations have historically relied more on pay than on job security as a key extrinsic motivating factor (e.g., Deci, 1975).

There was a positive relationship between organizational turbulence and increases in base pay, meaning either that organizations generally reward managers for dealing with uncertainty or that the organizations in which salary progressed rapidly were among those marked by


relatively more turbulence. This reversed causal relationship is conceivable if the high costs incurred by an organization in the course of giving larger increases in salary precipitates a downsizing or delayering, for example.

The relationship between turbulence and increases in compensation may also be due to a mutual dependence upon a third unmeasured variable, such as the level of environmental (rather than organizational) turbulence. By operationalizing turbulence at the organizational level, we did not explicitly consider and control for environmental demands. Nevertheless, we would expect the effects of environmental turbulence to be mediated by organizational turbulence, because organizational decision-makers need to perceive and recognize environmental change before it affects their actions (Hambrick & Mason, 1984; Lant, Milliken, & Batra, 1992; Thomas & McDaniel, 1990).

One possible limitation of this study is that the managers in our sample had all been transferred by their organizations. To the extent that this indicates the high value their organizations placed on these managers, they might have been treated somewhat differently following turbulence than other managers who were not transferred. Thus, the results may not generalize to managers who were not transferred: i.e., managers who are not as valued may not be given increased compensation following turbulence; indeed, these managers may even be unemployed. Nonetheless, giving a manager a transfer is only one of many signals an organization can use to indicate that it values certain managers. Other signals could include rapid promotion (Rosenbaum, 1984) and requests to serve on committees (Pfeffer, 1981), as well as other more subtle cues. Perhaps surviving turbulence is itself a signal that a manager is valued. We expect the results to generalize at least to other valued managers and possibly to managers in general.

Implications For Future Research

Our results suggest that a promising area for future research is the degree of "fit" that ex-

ists between an organization's business strategy and its human resource strategy (including the type of implied contract that is pursued). Numerous authors (e.g., Gomez-Mejia & Balkin, 1992; Kerr & Slocum, 1987; Slocum & Cron, 1988; Sonnenfeld, et. al., 1988) have argued that an organization's human resource practices (career systems, reward systems, etc.) should be linked to and reinforce the organization's business strategy. Gomez-Mejia and Balkin (1992) review studies that show that an organization's performance is enhanced when its compensation practices reinforce its business strategy. Because our sample of organizations was relatively small, we were unable to test whether an association existed between the type of implied contract an organization had and its business strategy. Further research could examine the extent to which the nature of the implied contract and other human resource practices tend to be aligned with business strategy, as well as the performance consequences of alignment and misalignment. 

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References

1. Aldrich, H.E., *Organizations and Environments*, Englewood Cliffs: Prentice Hall, 1979.
2. Arnold, H.J., "Moderator variables: A clarification of conceptual, analytic, and psychometric issues," *Organizational Behavior and Human Performance*, Vol. 29, pp. 143-174, 1982.
3. Arnold, H.J., "Task performance, perceived competence, and attributed cause of performance as determinants of intrinsic motivation," *Organizational Behavior and Human Decision Processes*, December, pp. 876-86, 1985.
4. Bills, D.B., "Costs, commitments, and rewards: Factors influencing the design and implementation of internal labor markets," *Administrative Science Quarterly*, 32, 202-221, 1987.
5. Cameron, K.S., M.U. Kim, and D.A. Whetten, "Organizational effects of decline and turbulence," *Administrative Science Quarterly*, Vol. 32, pp. 222-240, 1987.
6. Cohen, J., and P. Cohen, *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 2nd ed., Hillsdale, N.J.: Lawrence Erlbaum Associates, 1983.
7. Deci, E.L., "The effects of externally mediated rewards on intrinsic motivation," *Journal of Personality and Social Psychology*

Appendix
Factor Analysis of Implied Contract Content

Variable	Factor 1
This division shows real concern for its people.	.81
In this division, people are treated as more important than things.	.77
Employees are carefully developed and trained over time in this division.	.71
Company Loyalty Scale (Patchen, 1965)	.64
This division has extensive employee and management training and development programs.	.56
Career Loyalty Scale (Reilly, Brett, & Stroh, 1993) (R)	.48
How many years do you expect to work for your current company?	.41
The job security is good.	.43
Eigenvalue	3.65
X ² at 20 df =478.6, p<.001	

- ogy, Vol. 31, pp. 105-15, 1971.
8. Deci, E.L., *Intrinsic Motivation*, New York: Plenum, 1975.
 9. Dess, G.G., and D.W. Beard, "Dimensions of organizational task environments," *Administrative Science Quarterly*, Vol. 29, pp. 52-73, 1984.
 10. Doeringer, P.B., "Workplace turbulence and workforce preparedness," In P.B. Doeringer, (Ed.), *Turbulence in the American Workplace*, New York: Oxford University Press, 1991.
 11. Feldman, D.C., and Arnold, H.J., *Managing Individual And Group Behavior In Organizations*, New York: McGraw-Hill, 1983.
 12. Gerhart, B., and G.T. Milkovich, "Organizational differences in managerial compensation and financial performance," *Academy of Management Journal*, Vol. 33, pp. 663-691, 1990.
 13. Gomez-Mejia, L.R., and D.B. Balkin, *Compensation, organizational strategy, and firm performance*, Cincinnati: South-Western, 1992.
 14. Gorsuch, R.L., *Factor Analysis*, 2nd ed. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1983.
 15. Hambrick, D.C., & Mason, P.A., "Upper echelons: The organization as a reflection of its top managers," *Academy of Management Review*, Vol. 9, No. 2, pp. 193-206, 1984.
 16. Handy, C., *The Age of Unreason*, Cambridge: Harvard University Press, 1989.
 17. Hirsch, P., *Pack Your Own Parachute*, Reading, Mass.: Addison Wesley, 1987.
 18. Hirsch, P., "Undoing the managerial revolution? Needed research on the decline of middle management and internal labor markets," In R.S. Swedberg (Ed.), *Explorations in Economic Sociology*, pp. 135-157, New York: Russell Sage Foundation, 1993.
 19. James, L.R., "Aggregation bias in estimates of perceptual agreement," *Journal of Applied Psychology*, Vol. 6, No. 2, pp. 219-229, 1982.
 20. Kerr, J., and R.A. Bettis, "Boards of directors, top management compensation, and shareholder returns," *Academy of Management Journal*, Vol. 30, pp. 645-664, 1987.
 21. Kerr, J., and J.W. Slocum, Jr., "Managing corporate culture through reward systems," *Academy of Management Executive* Vol. 1, No. 2, pp. 99-108, 1987.
 22. Lant, T.K., F.J. Milliken, and B. Batra, "The role of managerial learning and interpretation in strategic persistence and reorientation: An empirical exploration," *Strategic Management Journal*, Vol. 13, pp. 585-608, 1992.
 23. Lawrence, P.R., and J. Lorsch, *Organization and Environment*, Cambridge: Harvard University Press, 1967.
 24. Leonard, J.S., "Executive pay and firm performance," *Industrial and Labor Relations Review*, Vol. 43, pp. 13-29, 1990.
 25. Miles, M.B., and A.M. Huberman, *Qualitative Data Analysis: A Sourcebook of Methods*, Beverly Hills. Calif.: Sage, 1984.
 26. O'Reilly, B., "The new deal: What companies and employees owe one another," *Fortune*, June 13, pp. 44-52, 1994.
 27. Patchen, M., "Some questionnaire measures of employee morale: A report on their reliability and validity," Ann Arbor: Institute for Social Research monograph no. 41, 1965.
 28. Pfeffer, J., *Power in Organizations*. Cambridge: Ballinger, 1981.
 29. Reilly, A.H., Brett, J. M. & Stroh, L.K., "The impact of corporate turbulence on managers' attitudes," *Strategic Management Journal*, Vol. 14, pp. 167-179, 1993.
 30. Rosenbaum, J.E., *Career Mobility in a Corporate Hierarchy*. New York: Academic Press, 1984.
 31. Rousseau, D.M., "Psychological and implied contracts in organizations," *Employee Rights and Responsibilities Journal*, Vol 2, pp. 121-139, 1989.
 32. Rousseau, D.M., and J.M. Parks, "The contracts of individuals and organizations," In L.L. Cummings and B. Staw (Eds.). *Research in Organizational Behavior* 15,

- 1993.
33. Rozen, M.E., *The Economics of Organizational Choice: Workers, Jobs, Labor Markets, and Implicit Contracting*, Ann Arbor: University of Michigan Press, 1991.
 34. Schneider, B., "The people make the place," *Personnel Psychology*, Vol. 40, pp. 437-453, 1987.
 35. Slocum, J.W., Jr., and W.L. Cron, "Business strategy, staffing, and career management issues," In M. London and E.M. Mone (Eds.), *Career Growth and Human Resource Strategies: The Role of the Human Resource Professional in Employee Development*, pp. 135-151, New York: Quorum, 1988.
 36. Sonnenfeld, J.A., & M.A. Peiperl, "Staffing policy as a strategic response: A typology of career systems," *Academy of Management Review*, Vol. 13, No. 4, pp. 588-600, 1988.
 37. Sonnenfeld, J.A., M.A. Peiperl, and J.P. Kotter, "Strategic determinants of managerial labor markets: A career systems view," *Human Resource Management*, Vol. 27, No. 4, pp. 369-388, 1988.
 38. Staw, B.M., *Intrinsic and Extrinsic Motivation*, Morristown, NJ: General Learning Press, 1975.
 39. Steers, R.M., and S.R. Rhodes, "Knowledge and speculation about absenteeism," In P.S. Goodman and R.S. Atkin (Eds.), *Absenteeism: New Approaches to Understanding, Measuring, and Managing Employee Absence*. San Francisco: Jossey-Bass, 1984.
 40. Stroh, L.K., & Reilly, A.H., "Making or buying employees: The relationship between human resource policy, competitive business strategy and organizational structure," *Journal of Applied Business Research*, Vol. 10, pp. 12-18, 1994.
 41. Stroh, L.K., J.M. Brett, and A.H. Reilly, "A decade of change: Managers' attachment to their organizations and their jobs," *Human Resource Management Journal*, Vol. 33, No. 4, pp. 531-548, 1994.
 42. Stroh, L.K., J.M. Brett, and A.H. Reilly, "Agency theory and variable pay compensation strategies," *Academy of Management Journal*, Vol. 39, No. 3, pp. 751-767, 1996.
 43. Thomas, J.B., and R.R. McDaniel, Jr., "Interpreting strategic issues: Effects of strategy and the information-processing structure of top management teams," *Academy of Management Journal*, Vol. 33, No. 2, pp. 286-306, 1990.
 44. Tukey, J.W., *Exploratory Data Analysis*. Reading, Mass.: Addison-Wesley, 1977.
 45. Verespej, M., "Pay-for-skills: Its time has come," *Industry Week*, June 15, pp. 22-30, 1992.
 46. Zedeck, S., "Problems with the use of 'moderator' variables," *Psychological Bulletin*, Vol. 76, No. 4, pp. 295-310, 1971.

