The Equity Risk Premium in 2008: Evidence from the Global CFO Outlook Survey

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ABSTRACT

We analyze the results of a recent survey of U.S. Chief Financial Officers (CFOs) conducted in 2008. We present expectations of the equity risk premium measured over a 10-year horizon relative to a 10-year U.S. Treasury bond. This multi-year survey has been conducted every quarter from June 2000 to March 2008. Each quarter the survey also provides measures of cross-sectional disagreement about the risk premium, skewness, and a measure of individual uncertainty. The individual uncertainty is deduced from the 80% confidence interval that each respondent provides for his or her risk premium assessment. Using our time series of risk premia, we explore the link between these premia and real interest rates implied in Treasury Inflation Indexed Notes, stock market volatility represented by the VIX index, past stock market returns and equity valuation reflected in price to earnings ratios.

JEL Classification: *G11, G31, G12, G14*

Keywords: *Cost of capital, equity premium, long-term market returns, long-term equity returns, expected excess returns, disagreement, individual uncertainty, skewness, asymmetry, survey methods, risk and reward, TIPs, VIX*

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1. Introduction

We analyze the results of the most recent survey of Chief Financial Officers (CFOs) conducted by Duke University and CFO Magazine. The survey closed on March 7, 2008 and measures expectations beginning in the second quarter of 2008. In particular, we poll CFOs about their long-term expected return on the S&P 500. Given the current 10-year T-bond yield, we provide estimates of the equity risk premium and show how the premium changes through time. We also provide information on the disagreement over the risk premium as well as average confidence intervals.

2. Method

2.1 Design

The quarterly survey of CFOs was initiated in the third quarter of 1996.¹ Every quarter, Duke University polls financial officers with a short survey on important topical issues (Graham and Harvey, 2006). The usual response rate for the quarterly survey is 5%-8%. Starting in June of 2000, a

¹ The surveys from 1996Q3-2004Q2 were partnered with a well-known national organization of financial executives. The 2004Q3-2004Q4 surveys were solely Duke University surveys, which used Duke mailing lists (previous survey respondents who volunteered their email addresses) and purchased email lists. The surveys from 2005Q1 to present are

question on expected stock market returns was added to the survey. Fig. 1 summarizes the results from the risk premium question. While the survey asks for both the one-year and ten-year expected returns, we focus on the ten-year expected returns herein, as a proxy for the market risk premium.

The executives have the job title of CFO, Chief Accounting Officer, Treasurer, Assistant Treasurer, Controller, Assistant Controller, or Vice President (VP), Senior VP or Executive VP of Finance. Given that the overwhelming majority of survey respondents hold the CFO title, for simplicity we refer to the entire group as CFOs.

2.2 Delivery and response

In the early years of the survey, the surveys were faxed to executives. The delivery mechanism was changed to the Internet starting with the December 4, 2001 survey. Among other things, we now collect the respondents' IP addresses (though not their identity or company) and are able to examine consistency of responses across different surveys. Respondents are given four business days to fill out the survey. Usually, two-thirds of the surveys are returned within two business days.

The response rate of 5-8% could potentially lead to a non-response bias. There are four reasons why we are not overly concerned with the response rate. First, our response rate is within the range that is documented in many other survey studies. Second, Graham and Harvey (2001) conduct a standard test for non-response biases (which involves comparing the results of those that fill out the survey early to the ones that fill it out late) and find no evidence of bias. Third, Brav, Graham, Harvey and Michaely (2005) conduct a captured sample survey at a national conference in addition to an Internet survey. The captured survey responses (to which over two-thirds participated) are qualitatively identical to those for the Internet survey (to which 8% responded), indicating that non-response bias does not significantly affect their results. Fourth, Brav et al. contrast survey responses to archival data from Compustat and find archival evidence for the universe of Compustat firms that is consistent with the responses from the survey sample.

partnered with CFO Magazine. The sample includes both the Duke mailing lists and the CFO Magazine subscribers that meet the criteria for policy-making positions.

2.3 Data integrity

In each quarter, we trim the top two and bottom two risk premium observations. Given that we have, on average, about 300 responses each quarter, this implies a less than 1% trim in each of the tails. In addition, of the over 9,000 survey observations, there was only a single observation (in the June 2000 survey) that we consider not credible. The trimmed and untrimmed data are very similar with the exception of the June 2000 survey.

There are two other steps that we take. First, for the purpose of some of our statistics, we require that the expected risk premium forecast be no more than the best-case scenario and no less than the worst-case scenario. If the ordering is violated, then the observation is deleted. Second, there are two instances in which respondents report in decimals rather than percentages. In these cases, we change the inputs to adhere to the survey format rather than deleting the observations.

2.4 The survey instrument and summary statistics

The expected market return questions are a subset of a larger set of questions in the quarterly survey of CFOs. The survey usually contains between eight and ten questions. Some of the questions are repeated every quarter and some change through time depending on economic conditions. The historical surveys can be accessed at <http://www.cfosurvey.org>. Appendix 1 shows the risk premium question in the most recent survey.

While the survey is anonymous, we collect demographic information on seven firm characteristics, including industry, sales revenue, number of employees, headquarters location, ownership (public or private), and proportion of foreign sales.

During the past six years, we have collected 9,074 responses to the survey. Panel A of Table 1 presents the date that the survey window opened, the number of responses for each survey, the 10-year Treasury bond rate, as well as the average and median expected excess returns. There is relatively little time variation in the risk premium. This is confirmed in Fig. 1, which displays the historical risk premiums contained in Table 1. The current premium, 3.80%, which is higher than the overall average of 3.46%, and the highest premium since the March 2004 survey. The historical high premium is 4.65% in September, 2000.

The March 2008 survey shows that the expected annual S&P 500 return is 7.58% (risk premium plus 10-year yield (3.80+3.78)).² The median expected return of 8.0% which is unchanged from a year ago. Panel B of Table 1 presents some summary statistics that pool all the responses. The average of all quarterly risk premiums is 3.46% with a quarterly standard deviation of 0.59%.³ The overall average risk premium (i.e. averaging all individual observations through time) is 3.34%.

The cross-sectional standard deviation across the individual CFO forecasts in a quarter is a measure of disagreement. In March 2007, the standard deviation, or the dispersion in beliefs among CFOs, is 2.39%. In the most recent survey, the disagreement sharply increases to 2.97% which is the second highest reading on record (just short of the 2.99% in June 2000).

We also report information on the average of the CFOs' assessments of the one in ten chance that the market will exceed or fall below a certain level. In March 2008, the worst case total return is 3.11%. The best-case return is 11.50%.

With information on the 10% tails, we construct a probability distribution for each respondent. We use Davidson and Cooper's (1976) method to recover each respondent's probability distribution:

$$\text{Variance} = ([x(0.90) - x(0.10)] / 2.65)^2$$

where $x(0.90)$ and $x(0.10)$ represent the 90th and 10th percentiles of the respondent's distribution. Keefer and Bodily (1983) show that this simple approximation is the preferred method of estimating the variance of a probability distribution of random variables, given information about the 10th and 90th percentiles. Notice that while disagreement sharply increases from November 2005 to November 2006, the average of individual volatilities posts a small decrease from 3.40% to 3.31%.

² See, for example, Ghysels (1998), Welch (2000), Ghysels (1998), Fraser (2001), Harris and Marston (2001), Pástor and Stambaugh (2001), Fama and French (2002), Goyal and Welch (2003), Graham and Harvey (2003), and Ang and Bekaert (2005) for studies of the risk premium.

³ Using the Ibbotson Associates data from January 1926 through December 2007, the arithmetic (geometric) average return on the S&P 500 over and above the 30-day U.S. Treasury bill is 8.32% (6.29%). Using data from April 1953-December 2007, the arithmetic (geometric) risk premium is 7.05% (5.96%). Over the April 1953-December 2007 period, the arithmetic (geometric) average return on the S&P 500 over the 10-year U.S. Treasury bond is 5.99% (4.89%). Fama and French (2002) study the risk premium on the S&P 500 from 1872-2000 using fundamental data. They argue that the ex ante risk premium is between 2.55% and 4.32% for 1951-2000 period. Ibbotson and Chen (2001) estimate a long-term risk premium between 4 and 6%. Other studies include, Siegel (1999), Asness (2000), Heaton and Lucas (2000) and Jagannathan, McGratten and Scherbina (2001). Welch (2001) in a survey of academics has the 30-year premium at 5.5% and a more recent survey in Welch (2008) reports a 5% premium. Also see Fernandez (2008) who reports risk premium estimates from a number of sources and Zenner et al. (2008).

There is also a natural measure of asymmetry in each respondent's response. We look at the difference between each individual's 90% tail and the mean forecast and the mean minus the 10% tail. Hence, if the respondent's forecast of the excess return is 6% and the tails are -8% and +11%, then the distribution is negatively skewed with a value of -9% ($=5\%-14\%$). As with the usual measure of skewness, we cube this quantity and standardize by dividing by the cube of the individual standard deviation. In every quarter's survey, there is on average negative skewness in the individual forecasts. The skew became slightly less negative from March 2007 to March 2008, -0.29 compared to -0.38.

Table 1

Summary statistics based on the responses from the
32 CFO Outlook Surveys from June 2000 to March 2008

A. By quarter

Survey date	Survey for	Number of survey responses	10-year bond yield	Average 10-year risk premium	Median risk premium	Disagreement (standard deviation of risk premium estimates)	Average of individual standard deviations	Average of individuals' worst 10% market return scenario	Average of individuals' best 10% market return scenario	Skewness of risk premium estimates	Average of individuals' asymmetry
6-Jun-00	2000Q3	206	6.1	4.35	3.9	2.99				0.81	
7-Sep-00	2000Q4	184	5.7	4.65	4.3	2.70				0.49	
4-Dec-00	2001Q1	239	5.5	4.20	4.5	2.31				0.37	
12-Mar-01	2001Q2	137	4.9	4.46	4.1	2.59				0.38	
7-Jun-01	2001Q3	204	5.4	3.79	3.6	2.43				0.49	
10-Sep-01	2001Q4	198	4.8	3.77	3.2	2.53				-0.11	
4-Dec-01	2002Q1	275	4.7	3.98	3.3	2.34				0.66	
11-Mar-02	2002Q2	234	5.3	2.88	2.7	2.17	3.21	3.66	12.23	0.30	-0.28
4-Jun-02	2002Q3	321	5.0	3.18	3.0	2.59	3.41	3.11	12.15	1.96	-0.39
16-Sep-02	2002Q4	363	3.9	4.00	4.1	2.27	3.36	3.10	12.01	1.03	-0.25
2-Dec-02	2003Q1	283	4.2	3.71	3.8	2.39	3.19	3.38	11.83	1.31	-0.28
19-Mar-03	2003Q2	180	3.7	3.66	3.3	2.12	3.57	1.92	11.40	0.49	-0.60
16-Jun-03	2003Q3	368	3.6	3.89	4.4	2.34	3.74	2.17	12.07	0.89	-0.33
18-Sep-03	2003Q4	165	4.3	3.21	3.7	1.87	2.80	3.34	10.78	-0.02	-0.42
10-Dec-03	2004Q1	217	4.4	3.83	3.6	2.22	3.24	3.35	11.94	0.74	-0.46
24-Mar-04	2004Q2	202	3.7	4.10	4.3	2.06	3.46	2.84	12.00	-0.03	-0.28
16-Jun-04	2004Q3	177	4.8	3.04	3.3	2.28	3.06	3.11	11.20	0.96	-0.39
12-Sep-04	2004Q4	177	4.3	3.24	3.3	2.32	3.13	2.70	10.98	0.64	-0.47
5-Dec-04	2005Q1	291	4.4	3.20	3.2	2.63	3.00	3.16	11.10	2.01	-0.36
28-Feb-05	2005Q2	275	4.3	3.19	3.2	2.47	2.99	3.23	11.16	1.49	-0.32
31-May-05	2005Q3	318	4.1	2.98	2.9	2.21	3.17	2.50	10.88	0.50	-0.25
29-Aug-05	2005Q4	325	4.2	2.93	2.8	2.20	3.23	2.26	10.82	0.96	-0.50
21-Nov-05	2006Q1	342	4.5	2.39	2.5	2.14	3.40	2.35	11.38	0.57	-0.23
6-Mar-06	2006Q2	278	4.6	2.57	2.4	2.37	3.43	2.11	11.18	1.11	-0.36
1-Jun-06	2006Q3	500	5.1	2.69	3.0	2.69	3.26	3.10	11.70	2.00	-0.23
11-Sep-06	2006Q4	465	4.8	2.50	2.2	2.47	3.29	2.57	11.28	1.37	-0.32
21-Nov-06	2007Q1	392	4.6	3.21	3.4	2.92	3.31	2.98	11.75	1.93	-0.29
1-Mar-07	2007Q2	388	4.6	3.13	3.5	2.39	3.31	2.79	11.56	1.83	-0.38
1-Jun-07	2007Q3	419	4.9	2.94	3.1	2.12	3.20	3.10	11.58	0.61	-0.38
7-Sep-07	2007Q4	486	4.5	3.35	3.5	2.81	3.08	3.39	11.54	1.80	-0.33
1-Dec-07	2008Q1	465	4.0	3.78	4.0	2.73	3.25	2.99	11.60	1.47	-0.32
7-Mar-08	2008Q2	388	3.8	3.80	4.2	2.97	3.16	3.11	11.50	2.28	-0.29
Average of quarters		296	4.57	3.46	3.44	2.43	3.25	2.89	11.51	0.98	-0.35
Std. dev. of quarters			0.60	0.59	0.61	0.28	0.20	0.46	0.43	0.67	0.09

B. By individual responses

All surveys	9,074	3.35	3.21	2.51	1.16
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2.5 The evidence from interviews

To further explore the risk premium, we conduct brief interviews on the topic of the cost of capital and the risk premium to understand the question that CFOs believe they are answering. We conducted 12 interviews over the 2003-2005 period.⁴ We gain a number of insights from the interviews. There is remarkable consistency in the CFOs' views.

First, the CFOs closely track both their company's stock and the market. They are often called upon internally (e.g., Board of Directors) or externally (analyst conference calls) to explain their company's stock price. As a result, they need to separate out the systematic and idiosyncratic variation in their company's stock returns. To do this, they attempt to understand the forces that might cause systematic variation in the market.

Second, the CFOs believe that the "risk premium" is a longer-term measure of expected excess returns and best covered by our question on the expected excess return over the next ten years – rather than the one-year question. Three-fourths of the interviewees use a form of the Capital Asset Pricing Model (which is consistent with the evidence in Graham and Harvey, 2001). They use a measure of the risk premium in their implementation of the CAPM. Often their 10-year risk premium is supplemented so that that company's hurdle rate exceeds their expected excess return on the S&P 500. Also, while not specified in the question, CFOs interpret the 10-year expected market return as the return to a buy-and-hold strategy. As a result, our survey measures the geometric rather than arithmetic average return.

2.6 Characterizing the variation in the risk premium

While we document the level and a limited time-series of the long-run risk premium, statistical inference is complicated by the fact that the forecasting horizons are overlapping. First, we have no way of measuring the accuracy of the risk premiums as forecasts of equity returns. Second, any inference based on regression analysis is confounded by the fact that from one quarter to the next, there are 38 common quarters being forecasted. This naturally induces strong serial correlation.

⁴ Three of these interviews exclusively focused on the risk premium question. Eight interviews were non-exclusive and based on surplus time available in the interviews in Brav et al. (2005) and Graham, Harvey and Rajgopal (2005). The remaining interview was conducted in 2005.

We will, however, try to characterize the time-variation in the risk premium without formal statistical tests. Figure 2 examines the relation between the mean premium and previous one-year returns on the S&P 500.

Figure 2

The mean premium and past one-year returns on the S&P 500 index

The evidence suggests that there is no linear correlation between past returns and the level of the long-run risk premium.

An alternative to using past-returns is to examine a measure of valuation. Figure 3 examines a scatter of the mean premium and the price-to-earnings ratio of the S&P 500.

Figure 3

The mean premium and the S&P 500 price-to-earnings ratio

Looking at the data in Figure 3, it appears that the inference is very similar, i.e. there is no relation. However, the relation appears to be non-linear. In 'normal P/E' ranges (less than 30), there is a strong positive relation (the R-square rises to 0.54). When the P/E is very high, the relation is negative (the R-square is 0.45). This negative relation simply means the expected return is lower at very high levels of valuation.

We also examine the real yield on Treasury Inflation Indexed Notes. The risk premium is like an expected real return on the equity market. It seems reasonable that there could be a correlation between expected real rates of return stocks and bonds. Figure 4 examines the 10-year on the run yield on the Treasury Inflation Indexed Notes.

Figure 4

The mean premium and the real yield on Treasury Inflation Indexed Notes

It is difficult to disentangle a relation between real bond yields and the equity premium. There is a weak positive correlation but an unusual gap in the TIPs yields between roughly 2.5 and 3%. Indeed, all of the higher real yields are observed before June of 2002 when some have argued that the TIPs yields included a liquidity premium (because they were relatively new). If these data are excluded, there is a significant negative relation between the real interest rates and the equity premium.

Finally, we consider the relation between volatility and the risk premium. Figure 5 shows that over our sample there is some evidence that there is a strong positive correlation between market volatility and the long-term risk premium. We use a five-day moving average of the implied volatility on the S&P 100 index option as our volatility proxy. The correlation between the risk premium and volatility is 0.64. If the closing day of the survey is used, the correlation is roughly the same. Asset pricing theory suggests that there is a positive relation between risk and expected return. While our volatility proxy doesn't match the horizon of the risk premium, the evidence, nevertheless, is suggestive of a positive relation.

Figure 5

The mean premium and the implied volatility on the S&P 100 index option (VIX)

2.6 Other survey questions

The March 2008 survey contains a number of other questions. <http://www.cfosurvey.org> presents the full results of these questions. The site also presents results conditional on the demographic characteristics. For example, one can examine the CFOs views of the risk premium conditional on the industry in which the CFO works.

2.7 Risk premium data and corporate policies

New research by Ben-David, Graham and Harvey (2008) uses the one-year risk premium forecasts as a measure of corporate optimism and the 80% confidence intervals as a direct measure of overconfidence. By linking email addresses that respondents provide to archival corporate data, Ben-David et al. find that the tightness of the confidence intervals is correlated with key corporate policies. Overconfident managers invest more, rely on long-term debt and pay fewer dividends. They also find that the managers repurchase more shares during a decline in share prices but issue

fewer shares following a price appreciation. The tightness of the risk premium confidence interval is also linked to executive compensation. The remuneration in firms with more overconfident CFOs is skewed towards performance-based compensation.

2.8 CFO Survey compared to other surveys

Table 2 compares the predictive ability of the Duke-CFO survey with other popular surveys. The table reports the correlations between the current quarter Duke-CFO survey of either optimism about the economy or optimism about the firm's prospects with the subsequent quarter's realization for five surveys: UBS-Gallup, CEO Survey, Conference Board Consumer Confidence, University of Michigan Consumer Confidence and ISM Purchasing Manager's Index. Both of the Duke-CFO optimism measures significantly predict all five of these popular barometers of economic confidence. This seems reasonable because the CFOs know the company's investment plans before, for example, the purchasing managers would get instructions to order goods and services.

Table 2
The ability of the Duke CFO survey to predict other surveys

Survey	Predictive correlations	
	Optimism about economy	Optimism about firm's prospects
UBS-Gallup	0.289	0.380
CEO Survey	0.814	0.824
Conference Board Consumer Confidence	0.513	0.767
University of Michigan Consumer Confidence	0.341	0.253
ISM Purchasing Managers Index	0.694	0.497

3. Conclusions

We provide a direct measure of ten-year market returns based on a multi-year survey of Chief Financial Officers. We show that there is remarkably little time-variation. Importantly, we have a 'measure' of expectations. We do not claim it is the true market expectation. Nevertheless, it is a measure that has not been studied before.

We measure more than the risk premium. Our survey allows one to track the assessment of the 10% best case and worst case risk premium outcomes as perceived by the CFOs. Our results also reveal the disagreement among CFOs and how that changes through time.

With only 32 observations each with a 10-year horizon, it is impossible to evaluate the accuracy of the market excess return forecasts. Even simple correlations with economic data are complicated because of the overlapping nature of the risk premium forecasts. Our examination of the determinants of the long-term risk premium suggests that long-term premiums not influenced by past stock returns. However, we present intriguing evidence that there is a potentially non-linear relation between risk premiums and a measure of stock market valuation. We also show a strong positive relation between market volatility and risk premia.

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Appendix A

The Survey Instrument

Duke University/CFO Global Business Outlook Survey Spring 2008

No individual firms are identified and only aggregate data are made public. Please respond by March 6. If you have any questions about this survey, please [contact us](#).

1. Are you more or less optimistic about the U.S. economy compared to last quarter?

- ☐ More optimistic
☐ Less optimistic
☐ No change

Rate your optimism about the U.S. economy on a scale from 0-100, with 0 being the least optimistic and 100 being the most optimistic.

2. Are you more or less optimistic about the financial prospects for your company compared to last quarter?

- ☐ More optimistic
☐ Less optimistic
☐ No change

Rate your optimism about the financial prospects for your own company on a scale from 0-100, with 0 being the least optimistic and 100 being the most optimistic.

3. What are the top three external concerns your corporation faces? (rank #1, #2, #3)

☐ Consumer demand	☐ Environmental regulation
☐ Cost of fuel	☐ Financial regulation
☐ Cost of non-fuel commodities	☐ Housing market fallout
☐ Credit markets/interest rates	☐ International political instability
☐ Currency risk	☐ Upcoming change in U.S. administration
☐ Devaluation of the U.S. dollar	☐ Other:

4. What are the three top internal, company-specific concerns your corporation faces? (rank #1, #2, #3)

☐ Ability to forecast results	☐ Cost of health care
☐ Auditing costs	☐ Data security
☐ Cost and availability of labor in	☐ Supply chain risk

accounting/finance department <input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/>	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/>
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Cost and availability of non-finance labor	Other: <input style="width: 200px; height: 20px;" type="text"/>

5. Relative to the previous 12 months, what will be your company's PERCENTAGE CHANGE during the next 12 months? (e.g., +3%, -2%, etc.) [Leave blank if not applicable]

<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Prices of your products	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Wages/Salaries
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Productivity (output per hour worked)	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Health care costs
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Technology spending	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Earnings
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Capital spending	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Order backlog
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Marketing/advertising spending	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Cash on the balance sheet
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Number of domestic employees	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Dividends
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> overall	<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Share repurchases
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Number of domestic employees in accounting/finance	
<input style="width: 40px; height: 20px; margin-left: 5px;" type="text"/> Number of foreign/off-shore outsourced employees	

6a. During 2008, does your company plan to :

- ☐ Acquire another company or companies?
- ☐ Acquire part of another company or companies?
- ☐ Both
- ☐ Neither

6b. During 2008, does your company plan to:

- ☐ Sell your company?
- ☐ Sell part of your company?
- ☐ Neither

7a. Do you think the U.S. is currently in a recession?

- ☐ Yes
- ☐ No → **7b. If no, what is the probability that the U.S. economy will experience a recession during 2008? (e.g., 0%, 50%, etc.)**

% chance of a U.S. recession some time in 2008

7c. When do you expect to see the economy turn the corner and begin returning to normal growth?

- ☐ 2008
- ☐ 1st half 2009
- ☐ 2nd half 2009
- ☐ Beyond

8. To what extent do you believe your company's foreign activity will offset potential weakness in U.S. demand for your product? (Please answer only if your company is headquartered in the U.S.)

- ☐ Not at all
- ☐ A small amount
- ☐ A moderate amount
- ☐ A large amount
- ☐ Not applicable

9a. Has your company been affected by the cost or availability of credit?

- ☐ No
- ☐ Yes, somewhat →
- ☐ Yes, very much →

9b. If yes, in what ways has your company been affected by the credit market turmoil?

[check all that apply]

☐ Decreased availability of credit

☐ Increased cost of credit → If yes, How many basis points

increase? bps

☐ Other:

10. The Federal Funds rate has been cut significantly in the last few months. From your perspective, what impact have these cuts had on your company?

Very
Helpful	Somewhat
Helpful	No Impact	Somewhat
Harmful	Very
Harmful
☐	☐	☐	☐	☐

11. Is your company taking any actions in response to recent economic turmoil in the U.S.?

- ☐ No, we are not taking any actions in response
- ☐ Yes, we are delaying or reducing capital spending
- ☐ Yes, we are delaying or reducing hiring plans
- ☐ Yes, we are delaying or reducing M&A plans
- ☐ Yes, we are delaying or reducing share repurchases
- ☐ Yes, other action:

12. On February 25, 2008 the annual yield on 10-yr treasury bonds was 3.9%. Please complete the following:

a. Over the next 10 years, I expect the average annual S&P 500 return will be:

Worst Case: There is a 1-in-10 chance the actual average return will be less than:

%

Best Guess:
I expect the return to be:

%

Best Case: There is a 1-in-10 chance the actual average return will be greater than:

%

b. During the next year, I expect the S&P 500 return will be:

Worst Case: There is a 1-in-10 chance the actual return will be less than:

%

Best Guess:
I expect the return to be:

%

Best Case: There is a 1-in-10 chance the actual return will be greater than:

%

13a. In the last year, approximately what percentage of 401(k) participants at your company have taken loans against or made hardship withdrawals from their 401(k) accounts? (e.g., 5%, 12%)

%

13b. Is the number of loans or withdrawals an increase, relative to 2006?

- ☐ Yes
☐ No

13c. To what do you attribute your employees taking loans or making hardship withdrawals?

- ☐ To make mortgage payments
☐ To ward off personal bankruptcy
☐ To cover health care costs
☐ To handle a family emergency
☐ To facilitate normal, non-emergency spending
☐ Other (please specify)

14. Who is your choice for the next president of the United States?

- ☐ Hillary Clinton
☐ Mike Huckabee
☐ John McCain
☐ Barack Obama
☐ Other (please specify)

Please check one from each category that best describes your company:

a. Industry

☐ Retail/Wholesale	☐ Tech [Software/Biotech]
☐ Mining/Construction	☐ Banking/Finance/Insurance
☐ Manufacturing	☐ Service/Consulting
☐ Transportation/Energy	☐ Healthcare/Pharmaceutical
☐ Communications/Media	☐ Other: ____

b. Sales Revenue

- ☐ Less than \$25 million

c. Number of Employees

- ☐ Fewer than 100

☐ \$25-\$99 million ☐ \$100-\$499 million ☐ \$500-\$999 million ☐ \$1-\$4.9 billion ☐ \$5-\$9.9 billion ☐ More than \$10 billion	☐ 100-499 ☐ 500-999 ☐ 1,000-2,499 ☐ 2,500-4,999 ☐ 5,000-9,999 ☐ More than 10,000
d. Headquarters	e. Ownership
☐ Northeast U.S. ☐ Mountain U.S. ☐ Midwest U.S. ☐ South Central U.S. ☐ South Atlantic U.S. ☐ Pacific U.S. ☐ Canada ☐ Central/Latin America ☐ Europe ☐ Asia	☐ Public, NYSE ☐ Public, NASDAQ/AMEX ☐ Private ☐ Government ☐ Nonprofit
f. Foreign Sales	g. Your job title (e.g., CFO, Asst. Treasurer, etc)
☐ 0% ☐ 1-24% ☐ 25-50% ☐ More than 50%	<input type="text"/>
h. Your age	i. What is your company's credit rating?
<input type="text"/> years	<input type="text"/>

Submit