BEFORE THE NEW YORK STATE PUBLIC SERVICE

COMMISSION

In the matter of:

APPLICATION OF CONSOLIDATED)
EDISON COMPANY OF NEW YORK) CASE NO. 09-E--0000
FOR AN INCREASE IN ELECTRIC RATES)

DIRECT TESTIMONY

OF

DR. ERIC B. LINDENBERG

MAY 2009

INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, AND ADDRESS.

A. My name is Eric B. Lindenberg and my address is 6 Ciafardini Court, Marlboro, New Jersey

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I hold a BS in Mathematics from Brooklyn College of the City University of New York, an MS in Operations Research from Cornell University and a PhD in Economics from New York University

Q. PLEASE SUMMARIZE YOUR BUSINESS CAREER.

A. I recently retired from Lehman Brothers, Inc where I was a Managing Director and Head of its European Global Finance Analytics Group based in London from July 2006 through November 2008. Before joining Lehman Brothers, I was previously employed by Citigroup Global Markets for 19 years beginning in 1987. At Citigroup, I was a Managing Director and Head of its Global Financial Strategy Group. At both Citigroup and Lehman Brothers, I was responsible for leading a team of professionals who advised clients on broad areas of corporate financial strategy including cost of capital, capital structure, rating agency strategy, acquisition financing, debt structuring, interest rate and FX hedging, corporate and equity valuation, dividend policy and liquidity targeting. Before joining Citigroup (originally Salomon Brothers), I was employed by AT&T from 1978 through 1986 where I worked in a variety of positions including setting rate of return and capital structure targets for its various lines of business. I was also responsible for

designing the initial capital structures for the spun off businesses after the settlement of the US government's antitrust case in 1982. My last assignment at AT&T was as Assistant Treasurer of its long distance business. In that position I was responsible for all of its regulatory submissions on matters of cost of capital, capital structure and business and financial risk. I was the company's chief internal expert witness in regulatory proceedings on matters of cost of capital and capital structure. Before working at AT&T, I was employed by its subsidiary, Bell Laboratories, where I was engaged in telecommunications research, including analysis of the pricing of telecommunications services.

Q. HAVE YOU HAD ANY ACADEMIC EXPERIENCE?

A. Yes. I am currently Adjunct Associate Professor of Finance at the Stern School of Business at New York University where, since 2003 (except for my time in London), I have been teaching a course to MBA students entitled "Applications of Corporate Finance Theory in the Real World". I also taught portfolio theory in NYU's MBA program in the early 1980s.

Q. WHAT IS YOUR PUBLICATION RECORD?

A. I have authored or co-authored a number of articles on corporate finance, investments and telecommunications pricing that were published in the Journal of Business, Journal of Financial Economics, Management Science, Journal of Applied Corporate Finance, Financial Analysts Journal and The Treasurer and contributed articles to published books entitled Portfolio Theory – 25 Years (North Holland) After and New Dimensions in Public Utility Pricing (MSU Press). Details of my publication record are set forth in Appendix A.

Q. HAVE YOU PREVIOUSLY FILED COST OF CAPITAL TESTIMONY BEFORE REGULATORY BODIES?

A. Yes. While at Citigroup, I testified on cost of capital and competition matters before the Illinois Commerce Commission and the Canadian Radio-television and Telecommunications Commission ("CRTC"). While at AT&T, I was a cost of capital witness before the Federal Communications Commission, the Massachusetts Department of Public Utilities and the California Board of Equalization.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY ON BEHALF OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. ("CECONY" OR THE "COMPANY")?

A. The purpose of my testimony is to (1) describe how the severe conditions in the financial markets and the downturn in the economy have produced significant increases in the volatility in the equity market generally and specifically in peer groups of companies that the Company and the Staff of the New York State Public Service Commission ("Commission") used to estimate the market cost of equity for CECONY in Case 08-E-0539, and (2) to show that this higher level of volatility has increased the risk of an equity investment in the Company and, in turn, has increased the Company's market cost of equity.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. My testimony is organized in five parts. First, I will discuss how and why equity market volatility has increased recently for the market as a whole and for the peer group being used by Company witness Dr. Roger Morin to estimate the market cost

of equity for CECONY. Second, I will introduce a new model for estimating the market cost of equity that recognizes the connection between the market cost of equity and equity market volatility. Specifically, this model infers the market cost of equity from the prices of options (and their associated implied volatilities) that are traded for the market indices such as the S&P 500 ("SPX") as well as for CECONY's peers. This model has been introduced in the published academic literature as the Market-Derived Capital Pricing Model ("MCPM"), but, for clarity purposes in this proceeding, I will also refer to it as the Option Market Implied Cost of Equity ("OMICE") model. Third, I will show that under recent market conditions, with high levels of market volatility, this model implies that the equity market risk premium ("EMRP") is significantly higher than traditional estimates. This higher EMRP indicates that the traditional capital asset pricing model ("CAPM") market cost of equity estimates developed by Dr. Morin are conservative. Fourth, I will apply the OMICE model directly to each of CECONY's peers to determine a market cost of equity estimate for each of them based on recent market conditions. Fifth and finally, I will offer a recommendation to the Commission on an appropriate ROE for the Company in this proceeding, based on the combined market cost of estimates of Dr. Morin and myself.

RECENT INCREASES IN EQUITY MARKET VOLATILITY

Q. PLEASE DESCRIBE THE CHANGES TO EQUITY MARKET VOLATILITY THAT HAVE OCCURRED RECENTLY.

A. Prices of securities in the equity market respond continuously to events that investors hope or fear will impact the fortunes of the companies that issue these securities. The frequency and magnitude of price changes resulting from these events is manifest in the volatility in these prices individually. Together the individual volatilities are expressed as volatility in the industry and overall equity market indices as well. While there has always been volatility in the equity markets, recent economic and financial conditions have created unusual shocks that have caused a significant increase in the actual volatilities observed in the market as well as the implied volatilities of the securities and indices observed in the options markets. These implied volatilities indicate that investors expect volatility in the future.

Q. WHAT ARE THE TYPES OF SHOCKS THAT HAVE PRODUCED THE HIGHER LEVELS OF VOLATILITY OBSERVED RECENTLY?

A. Starting in mid-2007, the markets reacted to news of the problems in the housing market. News related to the sub-prime mortgage sector and higher delinquency and default rates in the mortgage market created great uncertainty about the value of mortgage and real-estate related assets held by investors and especially financial institutions, driving down the values of those assets. The US economy went into recession in late 2007 but its breadth became more apparent during 2008. In the early part of 2008, the impact on financial institutions was signaled by the news of Bear Stearns' sale to JP Morgan at a dramatically lower price than recent trading prices, as well as the FDIC-managed takeover of Washington Mutual by JP Morgan. Later in 2008, the failure of Lehman Brothers highlighted the significant

systematic risks to the global financial system. The bailouts of AIG and later some companies in the auto sector, as well as frequent capital injections into large financial institutions raised questions about the adequacy of the government's strategies for addressing these crises. These uncertainties caused continued reluctance on the part of the banks to lend supply liquidity to the economy.

As the new administration took office in 2009, the depth of the recession became even more apparent, yet the proposed solutions all involved huge spending programs, selective higher taxes and potentially uncontrolled deficits and rising debt levels in the future. Yet, the market has exhibited little confidence that the proposed solutions would stimulate the economy enough to bring the US out of recession and create the incentives, opportunities and stability for the private sector to grow.

The huge increase in the frequency and magnitude of economic and financial shocks is what has increased volatility in the equity market. Most important, it has been the absence of confidence that there would be a strong banking system that can provide adequate liquidity to the private sector and to consumers and that there would be a path out of recession and into a stable growth trajectory that have caused the elevated volatility to be maintained.

Q. WHAT SPECIFIC EVIDENCE DO YOU HAVE THAT ACTUAL AND IMPLIED VOLATILITIES HAVE RISEN SIGNIFICANTLY DURING THE PERIOD OF THE HEIGHTENED ECONOMIC AND FINANCIAL SHOCKS YOU HAVE JUST DESCRIBED?

A. In Exhibit 1, I present a graph taken from Bloomberg that shows the volatility trend of the SPX index from April 1, 2004 through March 31, 2009. The graph shows the path of two measures of volatility for the SPX on a rolling basis, one for actual historic volatility and one for implied volatility taken from at-the money put options. The first is the historical volatility as measured by the 30-day annualized volatility on a rolling basis. From April of 2004 through the end of July 2007, actual SPX volatility remained almost completely in the 6%-15% range. Beginning in August 2007, when the recognition of the sub-prime mortgage problems was emerging, SPX volatility began to steadily rise to just over 28% by April 2008. At the beginning of October 2008, just after the Lehman Brothers bankruptcy, SPX volatility spiked to over 80% then trailed off to its current level of over 47%. This is almost four times the middle point of the tight volatility range observed before mid-2007.

Implied volatility showed a similar pattern, staying mostly in the 9%-19% range until early August 2007, when it began to rise to just over 27% by April 2008. Implied volatility also spiked in late September 2008, reaching a temporary high of 70% in late October, before falling a bit but staying near 40% recently.

In Exhibit 2, I present a graph of the historic volatility of the S&P Electric Utility Index (there are no traded options for this index). A pattern remarkably similar to the SPX index volatility is apparent, with the spikes in volatility also occurring in late July 2007 and again in early October 2008. This Exhibit demonstrates that not only has the rising volatility pattern been a market-wide phenomenon, but it has also been happening for the regulated electric sector as well.

In Exhibit 3, I present a similar graph for CECONY's parent, Consolidated Edison, Inc. ("CEI"). The historic volatility pattern is again quite similar to that of the SPX and electric utility indices. The implied volatility pattern is a bit more difficult to see until October 2008, primarily because options on CEI are more thinly traded and the volatility is a bit more erratic. Yet, recent implied volatility of near 30% is significantly higher than in the periods prior to mid-2007.

Collectively, this evidence provides strong support for my conclusion that equity market volatility, one of the important drivers of cost of capital, since mid-2007 has grown to be much higher than the steady, lower pattern of volatility seen in the past.

OPTION IMPLIED COST OF EQUITY MODEL

Q. WHY IS AN ALTERNATIVE MODEL TO THOSE EMPLOYED BY THE COMPANY AND BY THE COMMISSION STAFF IN PREVIOUS BASE RATE CASES NECESSARY IN THIS PROCEEDING?

A. The models traditionally employed in rate cases where cost of capital is linked to underlying measures of equity risk have, in practice, employed risk measures that are usually based on historical data. This is especially true of the CAPM where betas are based on regression analysis of historical return data and equity market risk premia most often are estimated from historical spreads between equity and bond returns or taken from a limited number of selected analyst forecasts. Given the dramatic increase in equity market volatility recently, it is important to

supplement the traditional models with an alternative that reflects a forward view of volatility and risk that is implied by current market data.

Q. HAS SUCH AN ALTERNATIVE MODEL BEEN DEVELOPED IN THE PUBLISHED FINANCE LITERATURE?

A. Yes. In 2002, in the Harvard Business Review, a new market cost of capital model was introduced that encompasses a forward view of volatility and risk in an article entitled "What's Your Real Cost of Capital?" The authors named it the MCPM. For purposes of clarity, because the MCPM specifically uses options market concepts and is being applied to estimate the market cost of equity in this proceeding, I will refer to the model in my testimony as the OMICE model.

Q. IS THE OMICE MODEL ONLY APPLICABLE DURING PERIODS OF HIGH EQUITY MARKET VOLATILITY?

A. No. The OMICE model is relevant during periods of high, low or medium volatility. It brings to the calculation of cost of equity the idea that total market volatility looked at from a forward perspective and observed in the options market is highly relevant to investors in assessing risk. It is particularly useful when there are sharp changes, either upward or downward, in volatility from the patterns found in historical periods. That is because other methods such as CAPM or DCF (due to the nature of their inputs as well as the manner in which they are implemented in practice) cannot adequately reflect these sharp changes in volatility.

Q. PLEASE DESCRIBE THE LOGIC BEHIND THE OMICE MODEL.

A. The OMICE model follows from two basic concepts:

(1) First, because equity investments provide returns to investors only after the claims of debt (including bond) investors are satisfied, the market cost of equity must be at least as large as the market cost of debt, which is the return demanded by bondholders. No equity investor would buy the common stock of a company unless the expected return on that stock was at least as large as what could be obtained from buying the company's bonds.

(2) Second, equity investors will require some extra expected returns beyond what debt holders receive to compensate for equity's subordinate position in the capital structure and the expected volatility and associated risk that comes along with that position. Part of the return they expect to receive is in the form of dividends. But, in addition, equity investors will require enough expected capital gains in the good times to protect them from receiving returns on average that are less than what the bondholders receive.

The first component is relatively easy to determine. It is the company's borrowing cost in the current market and is the sum of the risk free rate associated with the term of the debt and the credit spread for the company. Each is readily observable in the market and together they comprise the company's bond yield.

The second component is the extra return for downside protection below the bond yield. It must be sufficient to pay, over the life of the equity investment, for a put option that provides that protection. The OMICE model calculates the cost of that put option as an extra expected percentage return (capital gains) over the life of the investment to be added to the bond yield. The combination of dividend yield and

expected capital gains should then equal to the company's bond yield plus the annual increment sufficient to pay for the put option.

Q. WHAT ARE THE SPECIFIC ANALYTICAL STEPS NEEDED TO COMPUTE THE INCREMENT TO THE BOND YIELD REQUIRED TO DETERMINE THE COST OF EQUITY USING THE OMICE MODEL?

A. **Step1: Calculate a forward break-even price**

In this step, we need to determine just how much the share price needs to rise, at a minimum, over the life of the investment to compensate equity investors for their additional risk. In other words, how much is the minimum capital gain that will be required? Since total equity returns equal returns from dividends plus returns from capital gains and total equity returns should be greater than the return on debt, it must be that

Return from capital gains > Bond Yield – Dividend Yield

Given this minimum return required from capital gains, there will be a forward break-even stock price required by the end of the investment period to just provide a return (including dividends) equal to the bond yield. If the investment horizon is N years, the forward breakeven price is given by

(1) Forward Break-even Price = Current Stock Price x [1 + (Bond yield – Div Yield)]^N

For example, if a company with a stock price of $10 has a 10-year borrowing rate of 7% and a 4% dividend yield, the forward breakeven price for the case of a 10-year investment horizon will be

$$\$10 \times (1.03)^{10} = \$13.44$$

Step 2: Estimate the stock's future volatility

Given the break-even stock price, which is the minimum acceptable potential value for the stock by the end of the investment horizon, the next step is to determine the risk that investors will not reach that threshold. To do this, the OMICE model looks to the prices of options, which reflect the market's perception of the uncertainty about the company's ability to provide the minimum required capital gain. When the uncertainty is high, then the prices of traded options will reflect an implied volatility that investors collectively attribute to the stock.

To get estimates of future volatility over the life of the investment horizon, we infer volatilities from observed prices of options using the Black-Scholes option pricing model, which is the most widely-used model for valuing options. It can be readily accessed on Bloomberg. The Black-Scholes model determines option prices based on six factors: the current price of the stock, the exercise or "strike" price of the option, the time to expiration of the option, the prevailing interest rate on risk-free (usually US Treasury) securities having a term equal to the life of the option, the dividend yield of the stock, and finally the underlying expected volatility of the stock. Because the first five factors are either observable or contractual, given the observed price of an option, the Black-Scholes formula (see

Exhibit 4) can be inverted to solve for the implied market's expectation of volatility. For example, consider the put option on the SPX having a strike price of 850 that will expire on March 10, 2010. As of April 1, 2009, the current SPX price was 804.81 and this put option had a remaining time to expiration of just under 11 months. Using the Black-Scholes model, Bloomberg reported that the volatility of the SPX implied by that option on that date was 36.81%.

Because the cost of equity is a long-term concept, the time to expiration of put options relevant in the OMICE model will likely be considerably longer than the life of most traded options on the SPX or on individual stocks, which typically is not more than two to three years. For the purposes of this model, we will consider options and volatilities with terms as long as 30 years. Unfortunately, there are no traded options with 30-year terms from which to calculate implied volatility for use in the OMICE model. To approximate a 30-year implied volatility for the SPX, Exhibit 5 presents a table of the implied volatilities of actual traded SPX options for each of the terms currently available in the market. First, note that the longest dated SPX options go out only 2.7 years (to 12/17/2011). Second, except for the shortest dated options, implied volatilities generally decrease as the term increases, though only modestly. This is a commonly observed pattern in the options markets. Third, the slope of the term structure is fairly flat, meaning that implied volatilities decline very slowly as the term increases. This last observation suggests that if options with much longer terms were available, we should expect that their implied volatilities would likely be only slightly smaller than the implied volatility of the 2.7-year options that are available. In fact, options traders

recognize that very long-dated options would likely be very thinly traded even if they were available. As a result, to induce these traders to make a market and offer them for sale, these options would need to be offered to the market with implied volatilities virtually the same as (or perhaps higher than) the volatility of the 2.7-year options now in the market.

Given these observed volatility patterns, I will assume in my testimony that the implied volatility for very long-dated options on any underlying security or index will be at only a mild (5%) discount or "haircut" to the implied volatility of the longest-dated option actually traded in the market. I believe that this is a reasonable assumption and a lower bound to the "correct" volatility for such options. As such, option values based on this approximation will be conservative. I will use this "haircut" assumption in my applications of the OMICE model in later sections of my testimony.

Step 3: Calculate the cost of protecting against inadequate capital gains:

Using the volatility estimates described above, the OMICE model next calculates the cost to ensure against inadequate capital gains, or equivalently, not reaching the forward break-even price. That cost can be determined from the Black-Scholes model by valuing a theoretical put option whose time to expiration equals the length of the investment horizon and whose strike price is the forward break-even price. This put option gives investors the right to sell the shares at the strike price at the end of the investment horizon. Using the example described earlier, assume that the 10-year forward breakeven price on the $10 stock is $13.44 (as previously calculated) and that the Bloomberg volatility estimate for that stock over that

period is 35%. Then the Black-Scholes price (or premium) for the 10-year put option on this stock, as calculated on Bloomberg, is $5.21 or 52.1% of the spot price of the stock.

Step 4: Annualize the insurance premium:

Because the market cost of equity is normally expressed as an annual percentage return, the OMICE model requires that the put premium determined in Step 3 be converted into an annuity whose present value over the life of the investment is exactly equal to the put premium itself. To make this conversion process clearer, the analogy of an individual buying an annuity policy at retirement is instructive. The annuity promises to pay a fixed annual amount for a specified number of years in return for a lump-sum payment up front. In the context of the OMICE model, this annuitization process allows us to obtain the "excess" required return or equity risk premium over the life of the investment to be added to the bond yield to get the implied market cost of equity. To do this, we first express the put premium as a fraction of the current price and then convert that fraction into an annualized rate, by the following formula:

$$\frac{\text{(Put Premium / Current Price of Stock)}}{\left[1/\text{Bond Yield} - 1/((\text{Bond Yield})\times(1+\text{Bond Yield})^{\text{Term}})\right]} \quad (2)$$

Finally, the OMICE model adds this annuitized excess return to the bond yield to obtain the company's cost of equity.

Again using the earlier example, with a stock price of $10, a bond yield of 7%, an investment horizon of 10 years and a calculated put premium of $5.21, the annuitized excess return is

$$(5.21/10)/(1/.07-1/[.07(1.07)^{10}] = 7.42\%$$

The OMICE model then adds the excess return to the difference between the company's bond yield of 7% to produce an estimated market cost of equity of 14.42%.

Q. WHAT ADVANTAGES DOES THE OMICE MODEL HAVE OVER THE CAPM?

A. To understand the advantages of the OMICE model, it is important to first note that no one model can accommodate all the relevant factors that impact the market cost of equity. More than one model may be needed to capture investor behavior and current market conditions. CAPM is important because it recognizes that the desire of many investors to be diversified means that those investors will see the risk from individual investments primarily in terms of their contributions to the risk of diversified portfolios. That is the essence of beta which measures the systematic or non-diversifiable risk of each investment and under CAPM, beta is the only risk that is priced in the market This implies that low beta stocks (i.e., stocks with a beta below 1.0) will have low market costs of equity even if their total risk or volatility is high.

The OMICE model, in contrast, recognizes that many investors do not hold highly diversified portfolios either by choice, because of constraints they face, or because of information limitations or transactions costs. For those investors, non-

diversifiable risk is only part of the total risk for which they demand compensation. Good examples of non-diversification by choice are focused corporate investors who expect returns to compensate them for the total risk of their investments. Corporations, as investors in their own businesses, are not primarily portfolio managers. They control their investment risks, not by dramatic diversification, but rather by managing their operations efficiently to keep the risks of their enterprises as low as possible. Managing efficiently creates value that differentiates one company's performance from another. Since these companies are not trying to reduce risk through diversification, they require returns that reflect the full or total risks of their investments. The OMICE model is designed to relate cost of equity to total investment risk. Further discussion of the relevance of total investment risk to the market cost of equity is given in all of the references in my bibliography.

Second the CAPM--as it is usually implemented--is based on risk (beta) estimates calculated from data from past periods. Some implementations use a single year of historical data while others use as much as five years. Beta estimates are sensitive to changes in the estimation period or the periodicity of the data. In principle, one could avoid some of these problems by using forecasts of future volatility in the beta estimates. But beta is comprised of both a stock's volatility relative to the market's volatility as well as the stock's correlation with the market. Unlike volatility, there are no available market-based methods to forecast future correlation. CAPM remains a very useful model, especially in periods of normal volatility. The OMICE model allows us to directly address the impact of elevated

volatility by basing risk entirely on future volatility that can be directly estimated using traded options.

Finally, there is empirical evidence in the academic literature that systematic risk alone does not adequately differentiate equity returns. See, for example, Fama and French's classic article demonstrating that size and market-to book ratios, both of which are related to total volatility and not beta, are statistically related to security returns. This suggests that it is important in practice to also employ a model that is more sensitive to total risk and volatility differences than is CAPM. The OMICE model does just that.

Q. ARE YOU RECOMMENDING THAT OMICE COMPLETELY REPLACE THE OTHER COST OF EQUITY METHODS EMPLOYED BY THE STAFF OR BY DR. MORIN?

A. No. I believe that the OMICE model should supplement other methods for estimating the cost of equity. It can be used to estimate the cost of equity for CECONY's peers directly as an alternative to the CAPM. But it can also be used in conjunction with the CAPM to combine beta estimates, such as those from Value Line, with a forward looking EMRP based on forward implied volatility, by applying the OMICE model directly to the SPX. In the next section of my testimony, I will use the OMICE model to estimate this forward looking EMRP.

ESTIMATING THE EMRP USING THE OMICE MODEL

Q. HOW CAN THE OMICE MODEL BE USED TO ESTIMATE A FORWARD LOOKING EMRP TO BE USED IN CONJUNCTION WITH THE CAPM?

A. To obtain an EMRP estimate using the OMICE model, I will apply the concepts discussed earlier in my testimony directly to estimating a cost of equity for the SPX as a whole and then subtract the relevant risk free rate. Because the cost of equity used in the CAPM is relevant for the long-term, an applicable term for the OMICE model is 30 years, which is the term for the longest dated US Treasury bond.

Q. PLEASE DISCUSS YOUR OMICE COST OF EQUITY ESTIMATE FOR THE SPX.

A. First, I estimate a 30-year borrowing rate for the SPX. As Exhibit 6 shows, the median S&P bond rating for the S&P 500 companies is BBB+. As of April 22, 2009, Bloomberg reported the 30-year yield on BBB+ industrials was 7.54% and the 30-year yield on BBB+ utilities was 7.35%. These are secondary market yields and therefore are conservative estimates of yields for newly-issued debt. Together, industrials and utilities are among the largest borrowers within the S&P 500, except for the financials. I have used the weighted average of these two groups' 30-year BBB+ yields as an approximation for the composite yield for the SPX as a whole. Again, this is a conservative estimate because I have excluded the borrowing rate for financials from this calculation. The current BBB+ yield for financials is skewed significantly higher because of the severe credit crunch and uncertainty about the government's plans for that sector. Including financials would increase both the market yield and market cost of equity for the SPX. The weighted average of the

BBB+ 30-year yields for industrials and utilities (assuming 80% weight for industrials and 20% for utilities) as of April 22, 2009 was 7.50%.

On that same date, the dividend yield on the SPX as reported by Bloomberg was 3.39%. Subtracting the dividend yield from the 30-year borrowing rate (7.50% minus 3.39% = 4.11%)) and using the spot value on that date for the SPX index (843.55) allows us to compute the forward break-even price for the SPX from equation (1):

$$\text{Forward break-even price} = 843.55 \times 1.0411^{30} = 2824.12$$

Next, using the volatility estimation method I described earlier, we determine the Black-Scholes value of a 30-year put option whose strike price equals the forward break-even price. As of April 2, 2009, the implied volatility on the 2.7 year SPX options was 35.154% (see Exhibit 5). Applying a 5% haircut to this number produces an estimate of the implied volatility for a hypothetical 30-year put option on the SPX of 33.40%. The resulting Black-Scholes value for this 30-year put option struck at 2824.12 is 685.18.

The annuitized value of this put premium as calculated from formula (2) is:

$$(685.18/843.55) \;/\; (1/.0750 - 1/(.0750 \times 1.0750^{30})) = 6.88\%$$

As a last step, I add this excess return to the 7.50% bond yield calculated earlier to get a market cost of equity under current conditions for the SPX of 14.38%.

Q. WHAT EMRP DO YOU INFER FROM THIS ESTIMATE OF THE SPX MARKET COST OF EQUITY?

A. The EMRP implied by this market cost of equity is found by subtracting the 30-year Treasury bond yield as of April 22, 2009 (3.81%) from the SPX market cost of equity. The resulting EMRP is 14.38% minus 3.81% = 10.57%.

Q. WHAT MARKET COST OF EQUITY FOR CECONY RESULTS FROM EMPLOYING THE EMRP IMPLIED BY THE OMICE MODEL IN THE TRADITIONAL CAPM, USING DR. MORIN'S ESTIMATE OF CECONY'S BETA?

A. Dr. Morin employed the average Value Line beta for the peer group of 0.75 in his CAPM estimate. If the EMRP derived from the OMICE model (10.57%) is used instead of Dr. Morin's 6.5%, and we update the risk free rate to 3.81%, the market cost of equity would be 11.74% for CECONY.

Q WHAT MARKET COST OF EQUITY FOR CECONY RESULTS FROM EMPLOYING THE EMRP IMPLIED BY THE OMICE MODEL IN THE ECAPM UTILIZED BY DR. MORIN IN HIS TESTIMONY, USING HIS ESTIMATE OF CECONY'S BETA?

A. The ECAPM formulation utilized by Dr. Morin is

$$R_F + 0.25 \times EMRP + 0.75 \times ß \times EMRP$$

Inserting 3.81% for the risk free rate, 10.57% for the EMRP (from the OMICE model) and Dr. Morin's estimate of 0.75 for CECONY's beta, the market cost of equity would be 12.40%

APPLICATION OF THE OMICE MODEL TO DIRECT ESTIMATION OF IMPLIED COST OF EQUITY FOR CECONY PEERS

Q. CAN THE OMICE MODEL BE USED TO DIRECTLY ESTIMATE THE IMPLIED MARKET COST OF EQUITY FOR EACH OF CECONY'S PEERS, AND THEN TO INFER A MARKET COST OF EQUITY FOR CECONY ITSELF?

A. Yes, at least for those peers for which there are traded options from which to obtain implied volatilities. These direct estimates supplement the estimates from the CAPM discussed in the previous section of my testimony.

Q. PLEASE DISCUSS YOUR APPLICATION OF THE OMICE MODEL TO DIRECT ESTIMATES OF THE IMPLIED MARKET COSTS OF EQUITY FOR CECONY PEERS.

A. In Exhibit 7, I have provided tables for the term structure of volatility for each of CECONY's peers in the two groups used by Dr. Morin that, according to Bloomberg, have currently traded options[1]. These term structures are derived from the implied volatilities of the traded options with maturities equal to the various time periods shown in the tables. As can be seen, the general pattern is for implied volatility to decline with the amount of time left to expiration.

In Exhibit 8, I have listed, in the first four columns, each of the peers having traded options (Column (1)), their S&P credit ratings (Column (2)), the currently reported 30-year bond yields for utilities having that credit rating (Column (3)), the current dividend yield (Column (4)), their current (as of April 1, 2009) stock prices (Column (5)), the forward 30-year breakeven price based on the bond and dividend yield (Column (6)) and implied volatility for a 30-year put option based on my "haircut" method described earlier (Column (7)).

[1] I have included only those peers for which the terms of listed options go out to at least six months.

Q. WHAT PUT OPTION VALUES FOLLOW FROM THESE LONG-TERM IMPLIED VOLATILITIES IN COLUMN (7) OF EXHIBIT 8?

A. In Column (8) of Exhibit 8, I report the Black-Scholes values for hypothetical 30-year put options for each of the CECONY peers listed in Column (1) based on the long-term volatilities shown in Column (7) and the stock prices shown in Column (5). In Column (9), I report the annuitized value of these put options over the 30-year period. The numbers in this column represent the excess return required to protect against achieving insufficient capital gains needed to achieve the forward breakeven prices shown in Column (6).

Q. WHAT DIRECT OMICE MARKET COSTS OF EQUITY ARE IMPLIED BY THESE EXCESS RETURNS?

A. My estimates of the market costs of equity for CECONY peers are shown in Column (10) of Exhibit (8). These estimates were calculated by adding the excess return in Column (9) to the bond yields in Column (3).

Q. BASED ON THESE DIRECT ESTIMATES OF THE IMPLIED MARKET COSTS OF EQUITY FOR THE CECONY PEERS WITH TRADED OPTIONS, WHAT IS YOUR DIRECT ESTIMATE FOR CECONY'S IMPLIED MARKET COST OF EQUITY?

A. Below Column (10), I report the mean and median of the estimates for the individual peers. The median value is a preferable summary statistic here because it gives less weight to any of the individual outliers. Using the median, the estimate for CECONY's implied market cost of equity is 11.12%.

CONCLUSION

Q. WHAT IS YOUR OVERALL CONCLUSION ABOUT CECONY'S MARKET COST OF EQUITY?

A. I have employed two applications of the OMICE model to estimate CECONY's market cost of equity. The estimates from each application, before reflecting an increment for flotation costs are:

(1a) Forward Looking Implied EMRP inside the CAPM = 11.74%
(1b) Forward Looking Implied EMRP inside the ECAPM = 12.40%
Composite Average of the Two CAPM Estimates = 12.07%

(2) Direct Estimate of Implied Market Costs of Equity of CECONY Peers = 11.12%

Averaging the composite Forward Looking CAPM estimate with the Direct OMICE model estimate gives an overall average of 11.6% rounded to the nearest tenth of a percent.

Q. WHAT IS YOUR VIEW ON INCLUDING AN INCREMENT FOR FLOTATION COSTS IN ESTIMATING CECONY'S COST OF EQUITY?

A. I believe that is entirely correct and appropriate to include an increment for flotation costs. I have not independently analyzed and estimated that increment; however I have reviewed Dr. Morin's analysis and his recommendation to include a 30 basis point allowance and, in my judgment, find it quite reasonable.

Q. WHAT ARE YOUR CONCLUSIONS ABOUT CECONY'S COST OF EQUITY INCLUSIVE OF THE 30 BASIS POINT FLOTATION COST ALLOWANCE?

A. My estimates from the two applications of the OMICE model, after including the 30 basis point flotation cost allowance are:

(1a) Forward Looking Implied EMRP inside the CAPM = 12.04%
(1b) Forward Looking Implied EMRP inside the ECAPM = 12.70%
Composite Average of the Two CAPM Estimates = 12.37%

(2) Direct Estimate of Implied Market Costs of Equity of CECONY Peers = 11.42%

Averaging the composite Forward Looking CAPM estimate with the Direct OMICE model estimate gives an overall average of 11.9% rounded to the nearest tenth of a percent.

Q. ARE YOU PROPOSING THIS ESTIMATE TO THE COMMISSION AS AN ALTERNATIVE COST OF EQUITY TO DR. MORIN'S RECOMMENDATION?

A. No. Inasmuch as I believe that no one method for estimating the cost of equity can adequately reflect all the relevant factors, I recommend that my estimates of the Company's cost of equity be considered as supplemental to Dr. Morin's recommendation. I would, however, note that in light of the evidence from the OMICE model that reflects the large change in market volatility recently and going forward, Dr. Morin's recommendation is a conservative estimate of the Company's cost of equity, particularly because the CAPM and ECAPM components of his overall recommendation underestimate the significant impact that high current market volatility has on investor required rates of return, a view also expressed by Dr. Morin in his testimony.

Q. **HOW DO YOUR OMICE-BASED COST OF EQUITY ESTIMATES SHOW DR. MORIN'S RECOMMENDATION TO BE CONSERVATIVE?**

A. Whether you compare Dr. Morin's recommendation directly to my CAPM estimates (12.04%/12.70%), my Direct OMICE (11.42%) or the average of these

approaches (11.9%), or supplement Dr. Morin's composite with these additional approaches (11.3%)[2] or substitute my approaches for his CAPM (11.9%),[3] Dr. Morin's recommendation is reasonable, if not conservative.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

---

[2]

PRINCIPAL METHODOLOGIES	ROE
CAPM (Morin)	9.1%
CAPM Composite Using Forward Looking Implied EMRP (Lindenberg)	12.4%
Risk Premium (Morin)	11.5%
DCF (Morin)	12.2%
Direct OMICE Estimate of Implied Cost of Equity (Lindenberg)	11.4%
AVERAGE	**11.3%**

[3]

PRINCIPAL METHODOLOGIES	ROE
CAPM Composite Using Forward Looking Implied EMRP (Lindenberg)	12.4%
Risk Premium (Morin)	11.5%
DCF (Morin)	12.2%
Direct OMICE Estimate of Implied Cost of Equity (Lindenberg)	11.4%
AVERAGE	**11.9%**

Appendix A

Eric B. Lindenberg

6 Ciafardini Court
Marlboro, NJ 07746
Phone: 732-580-6956 (cell)
Email: ebl1@optonline.net

PROFESSIONAL EXPERIENCE

Lehman Brothers (London, United Kingdom)
July 2006 – November 2008
Managing Director and Head, Global Finance Analytics - Europe

- Developed and managed a multi-national team of professionals engaged in providing sophisticated analytically-based advice to corporate clients in Europe on broad areas of corporate financial strategy including capital structure, cost of capital, capital budgeting, capital distribution policies, credit rating analysis, shareholder value creation strategies, asset/liability management, risk management, etc.
- Senior advisor to clients in many industries on capital raising and strategic acquisition strategies

Citigroup Global Markets (New York, NY)
February 1987 – June 2006
Managing Director and Global Head, Financial Strategy Group

- Built the first organization on Wall Street focused on delivering quantitative and analytically-based advice on the entire range of corporate finance issues important to corporate clients. Recognized as one of the banking industry's top experts on matters of cost of capital, capital structure and financial strategies for shareholder value creation
- FSG's impact with corporate clients spawned imitators at other Wall Street firms, including Credit Suisse, Goldman Sachs, JP Morgan, ABN-Amro, Merrill Lynch and Lehman Brothers
- Senior advisor to financial managers at clients in virtually every industry group
- Significant emphasis on the telecommunications and utility sectors
- **Expert witness on matters of cost of capital and risk assessment in rate case and competition cases before public utility commissions for Bell Canada and Illinois Power**

PROFESSSIONAL EXPERIENCE (continued)

AT&T (New York, NY)
June 1978 – January 1987
Assistant Treasurer – AT&T Communications

- Numerous management positions responsible for a broad range of corporate and financial matters
- Managed the economic defense in the antitrust case US vs AT&T (1978-1981)
- Managed the financial planning function for allocating capital across multiple lines of business
- Corporate liaison with credit rating agencies for 23 issuing entities within the company
- Designed the initial capital structures for the seven new companies emerging from the Bell System break-up
- **Chief company rate of return witness in a number of state rate cases and two interstate rate cases before the FCC. Managed a team of ROR analyst/witnesses in the post-Bell System breakup period**

Bell Laboratories (Holmdel, NJ) **June**
1969 – June `1978
Member of Technical Staff

- Developed original published research on investment strategy, cost of capital and capital budgeting
- Provided consulting services to AT&T corporate management on cash management and capital allocation strategies as well as on telephone pricing policies under regulation

TEACHING EXPERIENCE

Adjunct Associate Professor of Finance, Stern School of Business
September 2003- Present
New York University (New York NY)

- Taught self-designed MBA course entitled "Applications of Corporate Finance Theory in the Real World" aimed at showing how solid financial theory can be applied realistically by real corporate decision makers to create value for shareholders. Based on my experiences in corporate financial research (9 years), as a corporate financial manager (9 years) and as an investment banker advising clients (over 20 years)

TESTIMONY OF DR. ERIC B. LINDENBERG

EDUCATION

PhD in Economics, New York University 1976
MS in Operations Research, Cornell University 1971
BS in Mathematics, Brooklyn College 1969

PUBLICATIONS

- Lindenberg, E.B. and Ross, M. (1999), " To Purchase or to Pool: Does It Really Matter?", Journal of Applied Corporate Finance, 12 No. 2
- Lindenberg, E.B. and Vilensky, J. (June 1993), "Reacting to a Positively Sloped Yield Curve" The Treasurer, 20-22, Association of Corporate Treasurers (UK)
- Leibowitz, M.L., Kogelman, S. and Lindenberg, E.B., "A Shortfall Approach to the Creditor's Problem – How Much Leverage Can a Firm Support?" (1990), Financial Analysts Journal, 46:3, 43-52
- Lindenberg, E.B. and Ross, S.A. (1981), "Tobin's q Ratio and Industrial Organization", Journal of Business, 54, No. 1, 1-32
- Lindenberg, E.B (1979), "Capital Market Equilibrium with Price Affecting Institutional Investors" in E.J. Elton and M.J Gruber (eds.), Portfolio Theory – 25 Years After, (New York, NY, North Holland)
- Bawa, V.S., Lindenberg, E.B. and Rafsky, L.C. (July 1979), "An Efficient Algorithm To Determine Stochastic Dominance Admissible Sets", Management Science, pg 609
- Bawa, V.S. and Lindenberg, E.B. (1977), "Capital Market Equilibrium in a Mean-Lower Partial Moment Framework", Journal of Financial Economics, 189-200
- Bailey, E.E. and Lindenberg, E.B. (1976),"Peak Load Pricing Principles: Past and Present" in H. Trebing (ed.), New Dimensions in Public Utility Pricing, (East Lansing, MI, Institute of Public Utilities, Michigan State University Press)

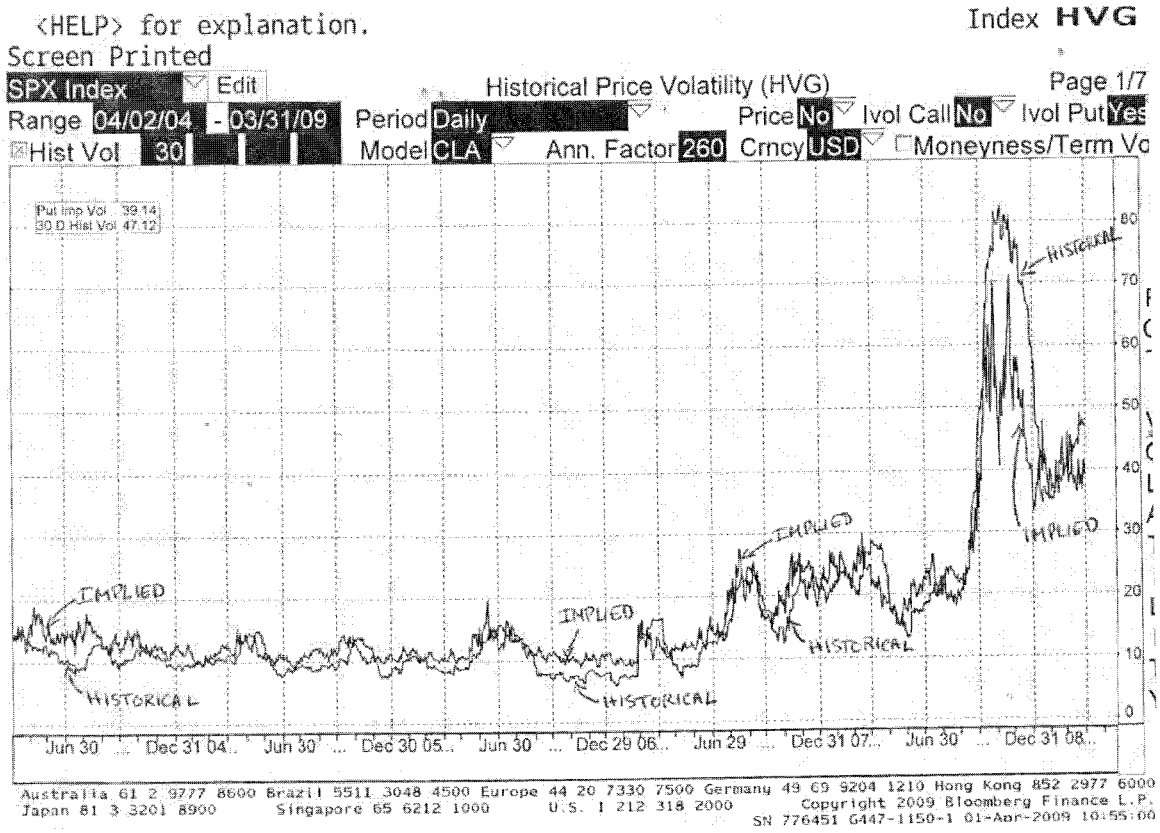
APPENDIX B

BIBLIOGRAPHY

- **The Cross Section of Expected Returns**, Eugene Fama and Kenneth French, Journal of Finance (1992), 47, 427-465.
- **What's Your Real Cost of Capital?**, James J. McNulty, Tony D. Yeh, William S. Schulze, and Michael H. Lubatkin, Harvard Business Review, October 2002
- **But Will It Raise My Share Price? New Thoughts About an Old Question**, Michael H. Lubatkin, William S. Schulze and James J. McNulty, Long Range Planning Vol XX, 2002
- **Corrective Lenses**, Ronald Fink, CFO Magazine, May 2003

EBL Exhibit 1

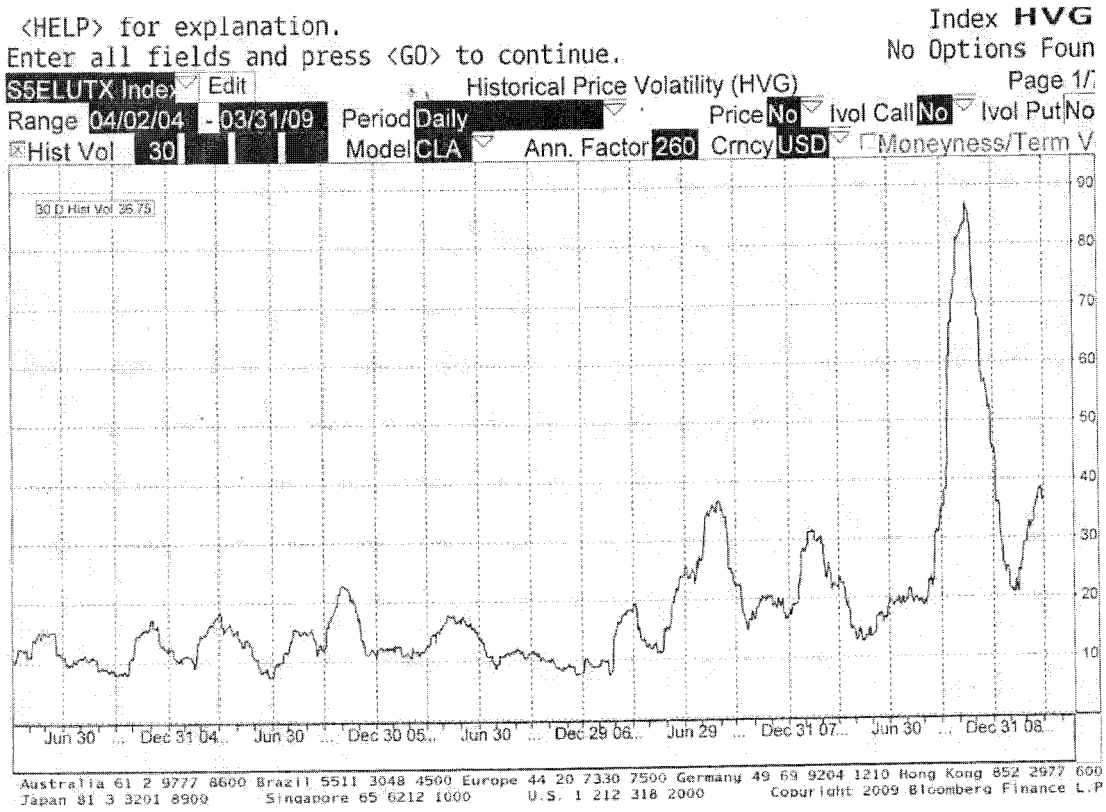
SPX Historical and Implied Volatility, April 2004 – March 2009



EBL Exhibit 2

S&P Electric Utility Index Historical and Implied Volatility,

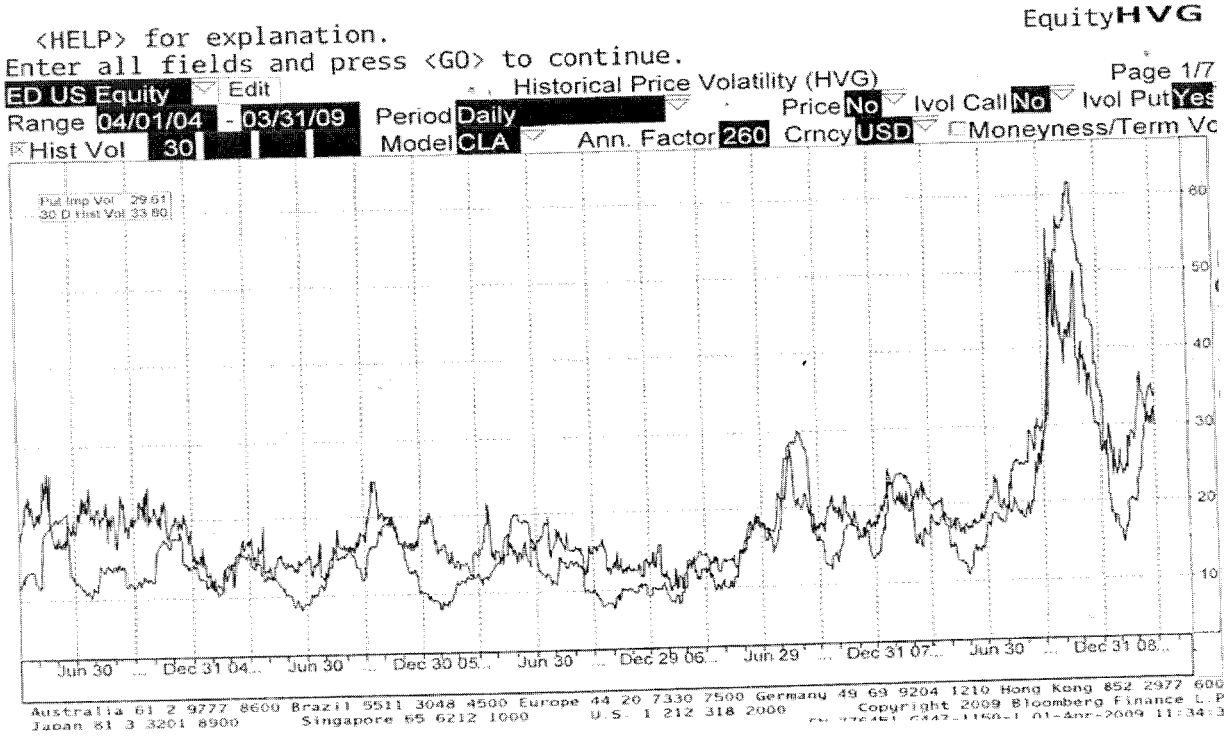
April 2004 - March 2009



EBL Exhibit 3

Consolidated Edison Historic and Implied Volatility

April 2004 – March 2009



The Black-Scholes Option Pricing Formula for Put Options

The value (price) of a put option on an underlying stock or index is given by:

$$p_t = Xe^{-r(T-t)}N(-d_2) - Se^{-d(T-t)}N(-d_1)$$

Where:

$$d_1 = \frac{\ln(\frac{S_t}{X}) + (r - d + 0.5\sigma^2)(T-t)}{\sigma\sqrt{T-t}}$$

$$d_2 = \frac{\ln(\frac{S_t}{X}) + (r - d - 0.5\sigma^2)(T-t)}{\sigma\sqrt{T-t}}$$

and

S_t = current or spot price of the stock or index at time t

X = exercise or strike price of the option

T = original time to expiration

t = current time

r = risk free rate (usually government bond rate) relevant for the time to expiration T-t

s = expected volatility of the underlying instrument over the time to expiration T-t

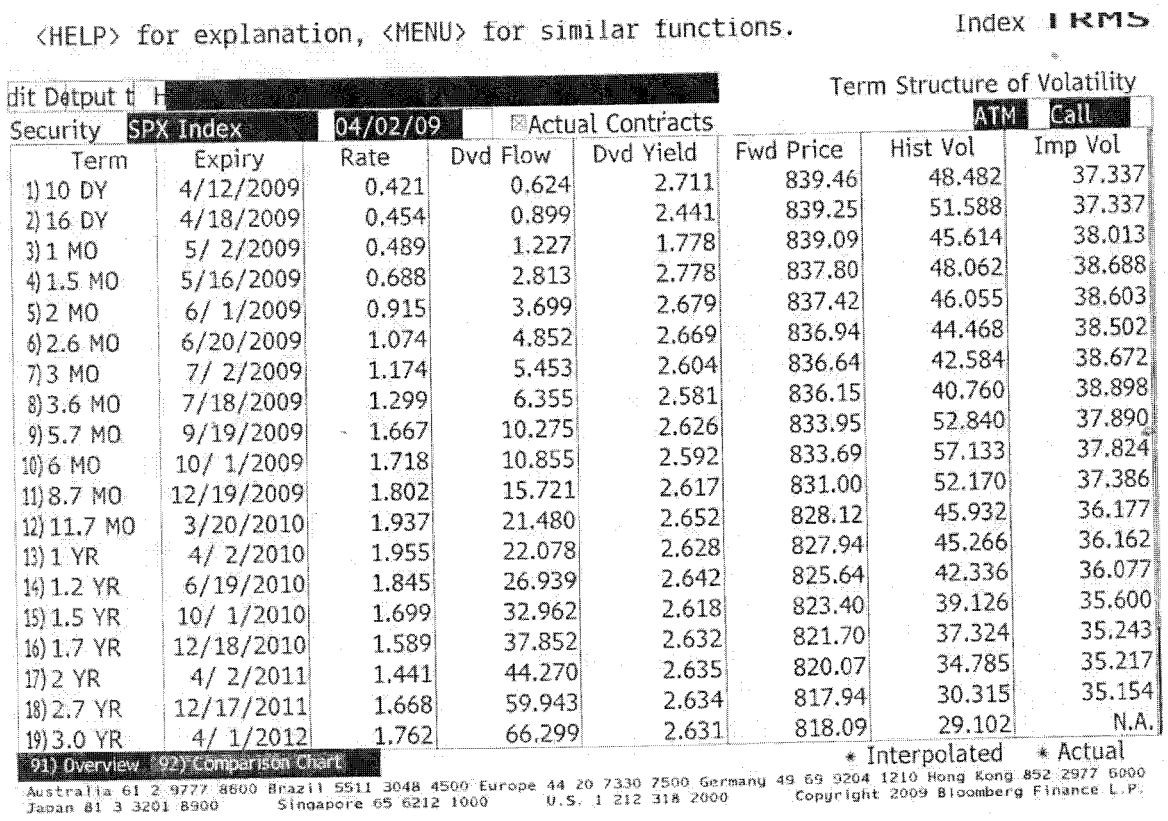
d = dividend yield (assumed constant)

and where N(x) is the cumulative normal distribution

$$N(x) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{x} e^{\frac{-z^2}{2}} dz$$

EBL Exhibit 5

SPX Term Structure of Volatility



<HELP> for explanation, <MENU> for similar functions. Index TRMS

dit Dotput t H

Term Structure of Volatility

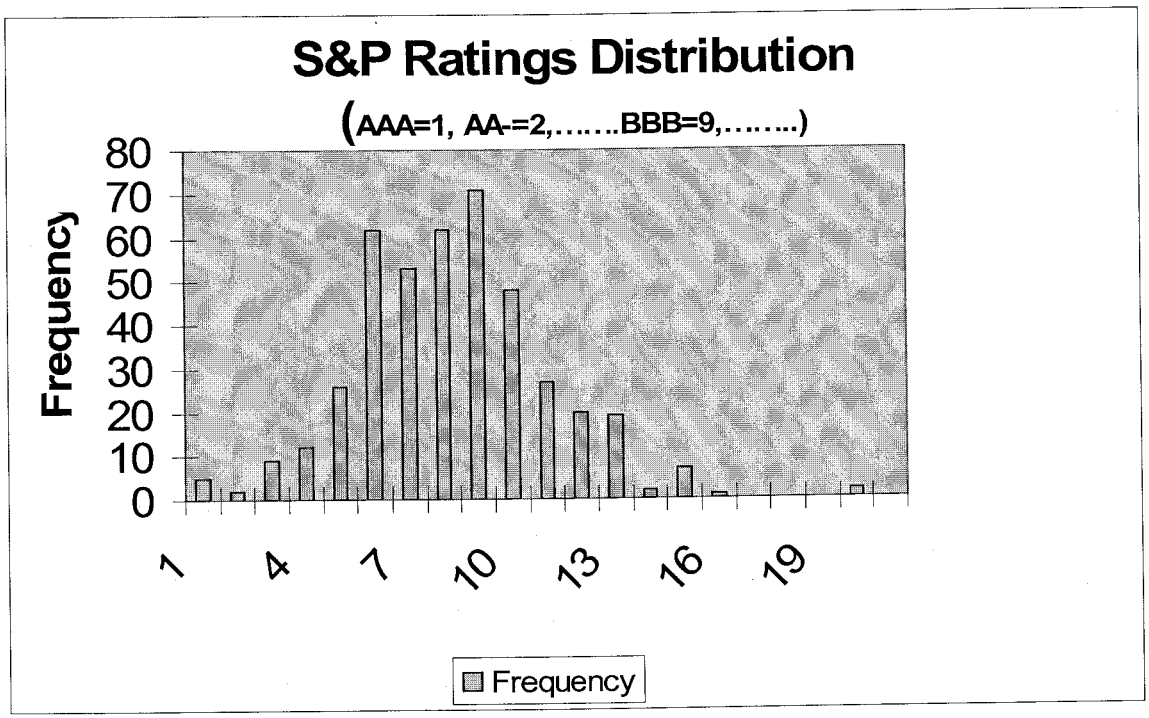
Security SPX Index 04/02/09 ☒Actual Contracts ATM Call

Term	Expiry	Rate	Dvd Flow	Dvd Yield	Fwd Price	Hist Vol	Imp Vol
1) 10 DY	4/12/2009	0.421	0.624	2.711	839.46	48.482	37.337
2) 16 DY	4/18/2009	0.454	0.899	2.441	839.25	51.588	37.337
3) 1 MO	5/ 2/2009	0.489	1.227	1.778	839.09	45.614	38.013
4) 1.5 MO	5/16/2009	0.688	2.813	2.778	837.80	48.062	38.688
5) 2 MO	6/ 1/2009	0.915	3.699	2.679	837.42	46.055	38.603
6) 2.6 MO	6/20/2009	1.074	4.852	2.669	836.94	44.468	38.502
7) 3 MO	7/ 2/2009	1.174	5.453	2.604	836.64	42.584	38.672
8) 3.6 MO	7/18/2009	1.299	6.355	2.581	836.15	40.760	38.898
9) 5.7 MO	9/19/2009	1.667	10.275	2.626	833.95	52.840	37.890
10) 6 MO	10/ 1/2009	1.718	10.855	2.592	833.69	57.133	37.824
11) 8.7 MO	12/19/2009	1.802	15.721	2.617	831.00	52.170	37.386
12) 11.7 MO	3/20/2010	1.937	21.480	2.652	828.12	45.932	36.177
13) 1 YR	4/ 2/2010	1.955	22.078	2.628	827.94	45.266	36.162
14) 1.2 YR	6/19/2010	1.845	26.939	2.642	825.64	42.336	36.077
15) 1.5 YR	10/ 1/2010	1.699	32.962	2.618	823.40	39.126	35.600
16) 1.7 YR	12/18/2010	1.589	37.852	2.632	821.70	37.324	35.243
17) 2 YR	4/ 2/2011	1.441	44.270	2.635	820.07	34.785	35.217
18) 2.7 YR	12/17/2011	1.668	59.943	2.634	817.94	30.315	35.154
19) 3.0 YR	4/ 1/2012	1.762	66.299	2.631	818.09	29.102	N.A.

91) Overview 92) Comparison Chart * Interpolated * Actual

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2009 Bloomberg Finance L.P.

EBL Exhibit 6

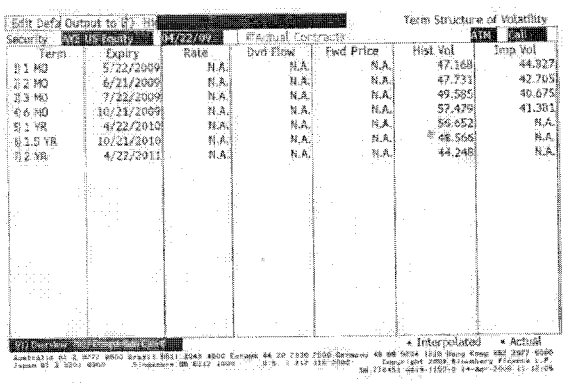


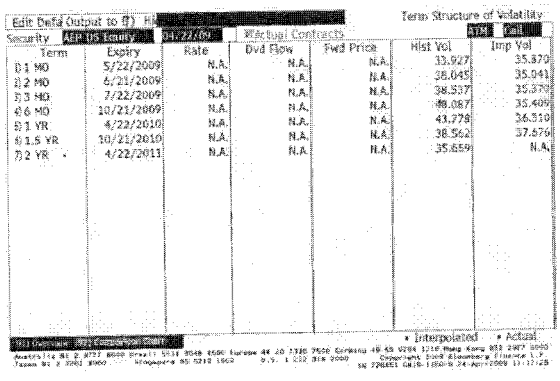
Median Rating = BBB+

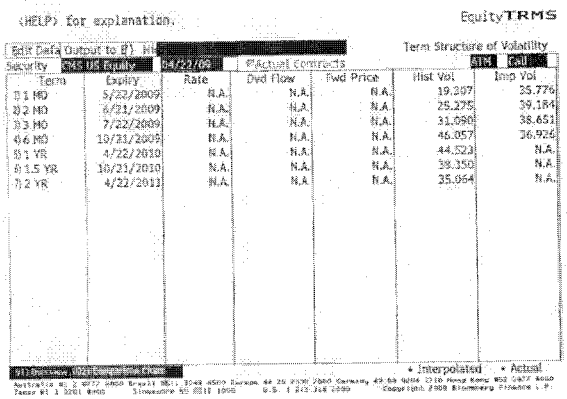
Mean Rating = BBB+

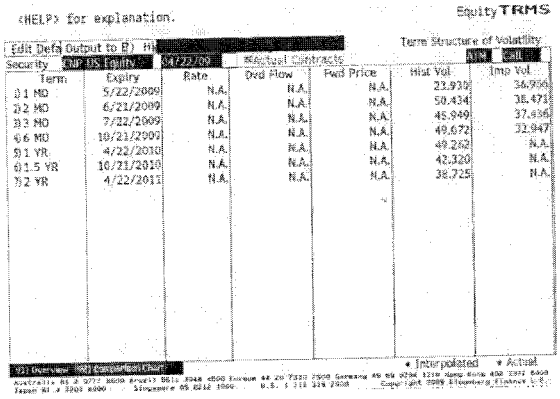
EBL Exhibit 7

Term Structure of Volatility for CECONY Peers





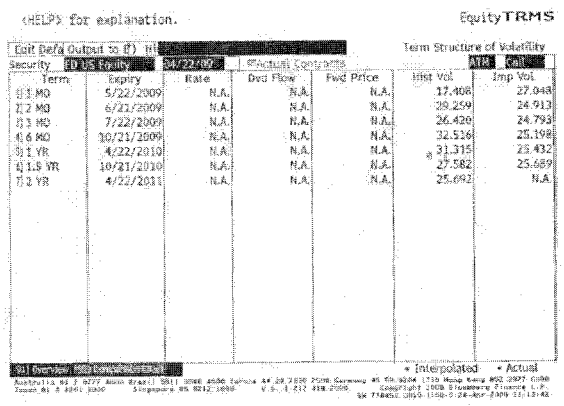


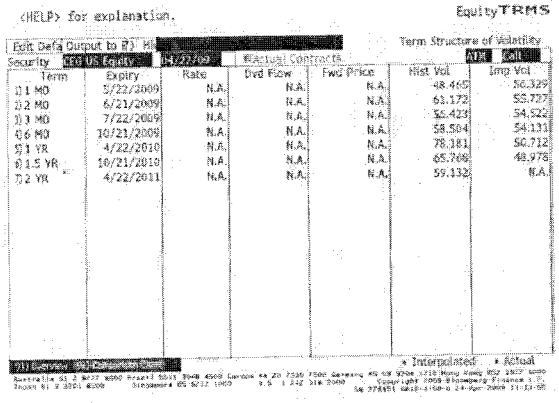


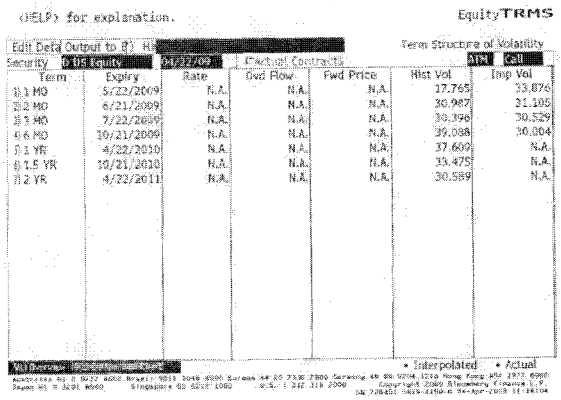
EBL Exhibit 7

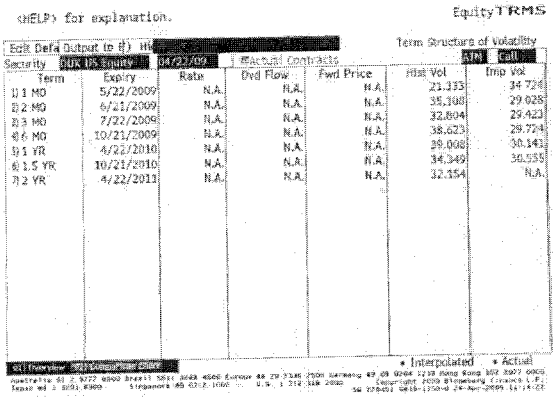
(Continued)

Term Structure of Volatility for CECONY Peers





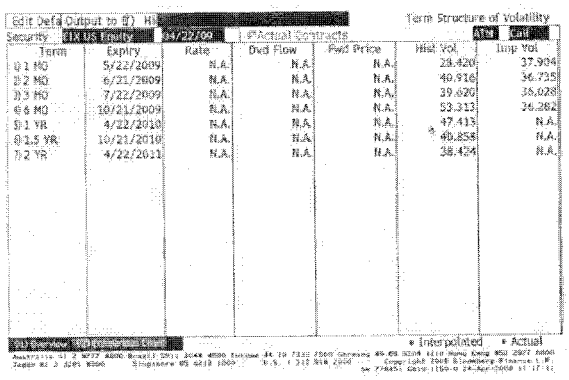




EBL Exhibit 7

(Continued)

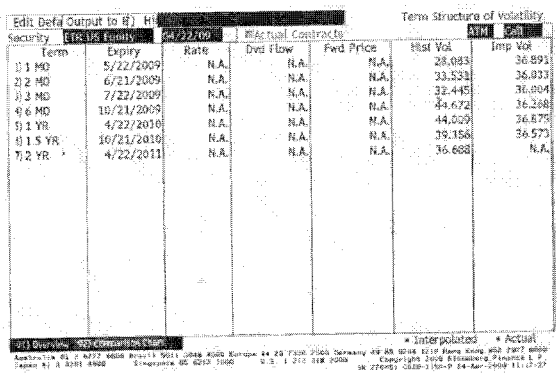
Term Structure of Volatility for CECONY Peers


Term Structure of Volatility

Security: TIN US Equity | 4/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	28.420	37.934
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	40.916	36.735
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	39.620	36.028
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	53.313	36.282
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	47.413	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	40.858	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	38.434	N.A.

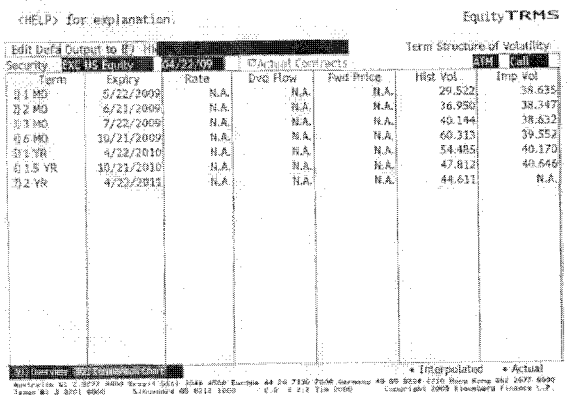
* Interpolated * Actual


Term Structure of Volatility

Security: ETR US Equity | 4/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	28.083	36.891
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	33.531	36.833
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	32.445	36.804
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	44.672	36.268
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	44.009	36.875
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	39.156	36.573
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	36.688	N.A.

* Interpolated * Actual

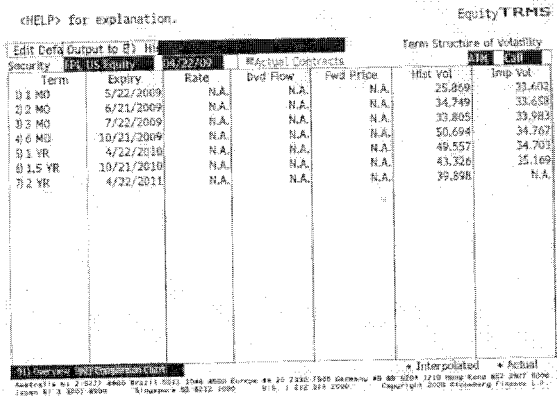

<HELP> for explanation. EquityTRMS

Term Structure of Volatility

Security: SO US Equity | 4/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	29.522	38.635
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	36.950	38.347
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	40.144	38.632
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	60.313	39.552
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	54.485	40.170
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	47.812	40.646
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	44.611	N.A.

* Interpolated * Actual


<HELP> for explanation. EquityTRMS

Term Structure of Volatility

Security: EP US Equity | 4/22/09 | #Actual Contracts | ATM | Call

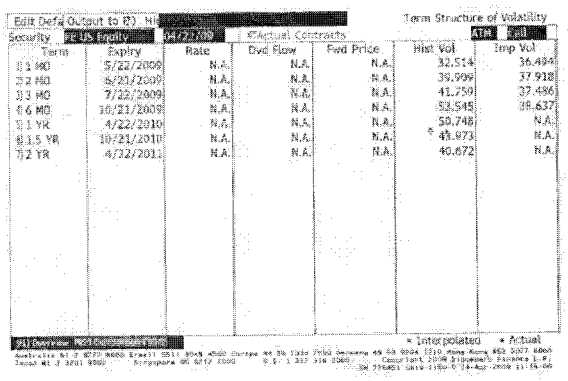
Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	25.869	33.402
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	34.749	33.658
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	33.805	33.983
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	50.694	34.767
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	49.557	34.703
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	43.326	35.169
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	39.898	N.A.

* Interpolated * Actual

EBL Exhibit 7

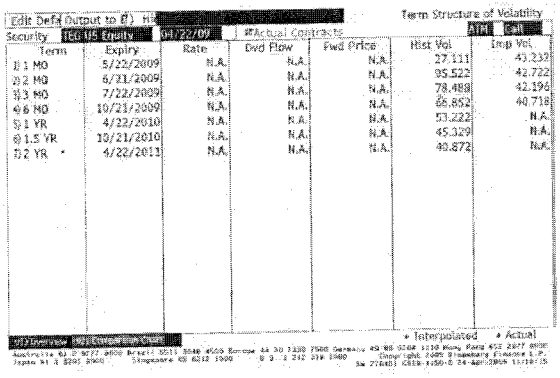
(Continued)

Term Structure of Volatility for CECONY Peers


Term Structure of Volatility

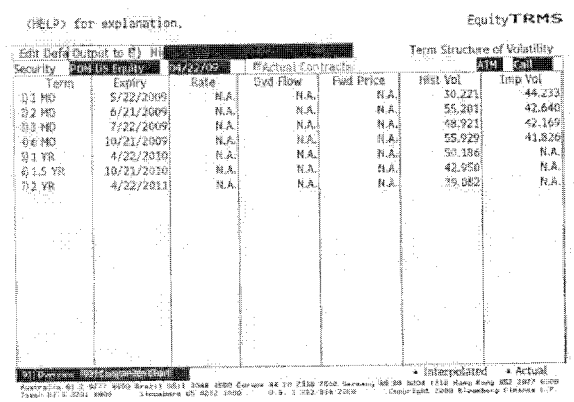
Security: PE US Equity | 04/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	32.514	36.494
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	39.906	37.918
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	41.759	37.486
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	52.545	38.637
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	50.748	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	45.973	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	40.672	N.A.


Term Structure of Volatility

Security: IEG US Equity | 04/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	27.111	43.232
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	95.522	42.722
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	78.488	42.196
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	66.852	40.718
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	53.222	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	45.329	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	40.872	N.A.

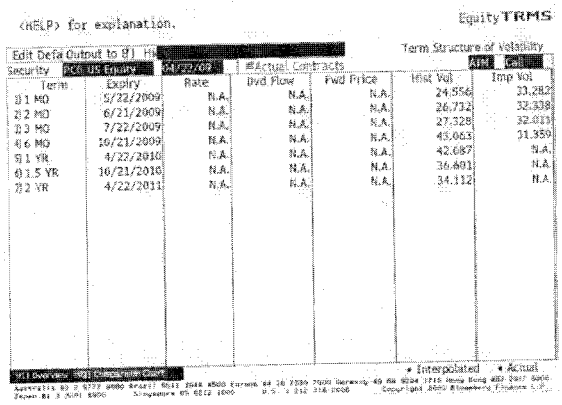

(HELP) for explanation.

EquityTRMS

Term Structure of Volatility

Security: POM US Equity | 04/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	30.221	44.233
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	55.201	42.640
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	48.921	42.169
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	55.929	41.826
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	50.186	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	42.950	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	39.082	N.A.


(HELP) for explanation.

EquityTRMS

Term Structure of Volatility

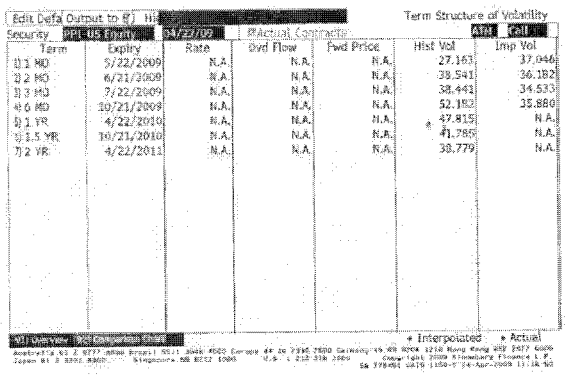
Security: PCG US Equity | 04/22/09 | #Actual Contracts | ATM | Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	24.556	33.282
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	26.732	32.338
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	27.328	32.011
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	45.063	31.359
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	42.087	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	36.601	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	34.112	N.A.

EBL Exhibit 7

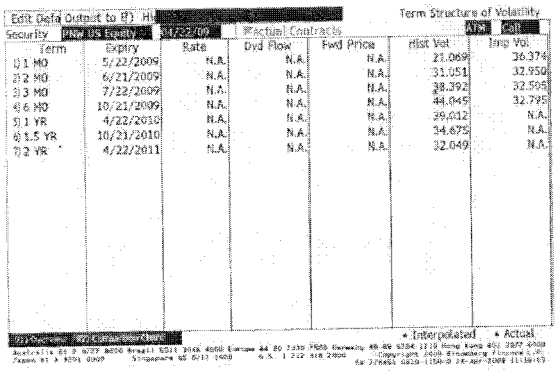
(Continued)

Term Structure of Volatility for CECONY Peers


Edit Defa Output to F) H
Term Structure of Volatility
Security PEG US Equity 04/27/09 #Actual Contracts ATM Call

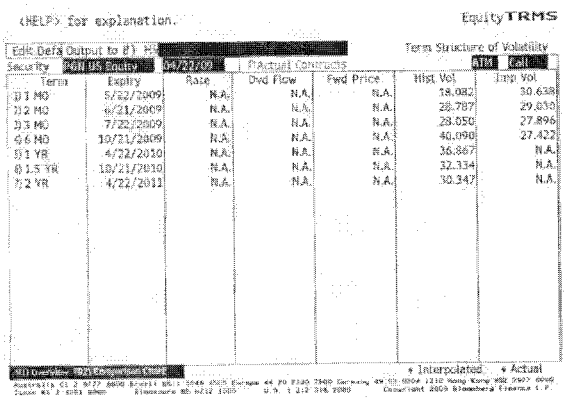
Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	27.163	37.046
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	38.541	36.182
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	38.441	34.533
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	52.182	35.880
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	47.815	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	41.785	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	38.779	N.A.

* Interpolated * Actual


Edit Defa Output to F) H
Term Structure of Volatility
Security PNW US Equity 04/27/09 #Actual Contracts ATM Call

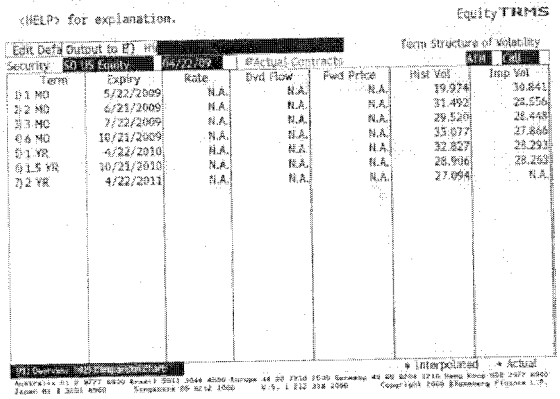
Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	21.069	36.374
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	31.051	32.950
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	38.392	32.505
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	44.045	32.795
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	39.012	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	34.675	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	32.049	N.A.

* Interpolated * Actual


(HELP) for explanation.
EquityTRMS
Edit Defa Output to F) H
Term Structure of Volatility
Security PGN US Equity 04/27/09 #Actual Contracts ATM Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	18.082	30.638
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	26.787	29.630
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	28.050	27.896
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	40.090	27.422
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	36.867	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	32.334	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	30.347	N.A.

* Interpolated * Actual


(HELP) for explanation.
EquityTRMS
Edit Defa Output to F) H
Term Structure of Volatility
Security SO US Equity 04/27/09 #Actual Contracts ATM Call

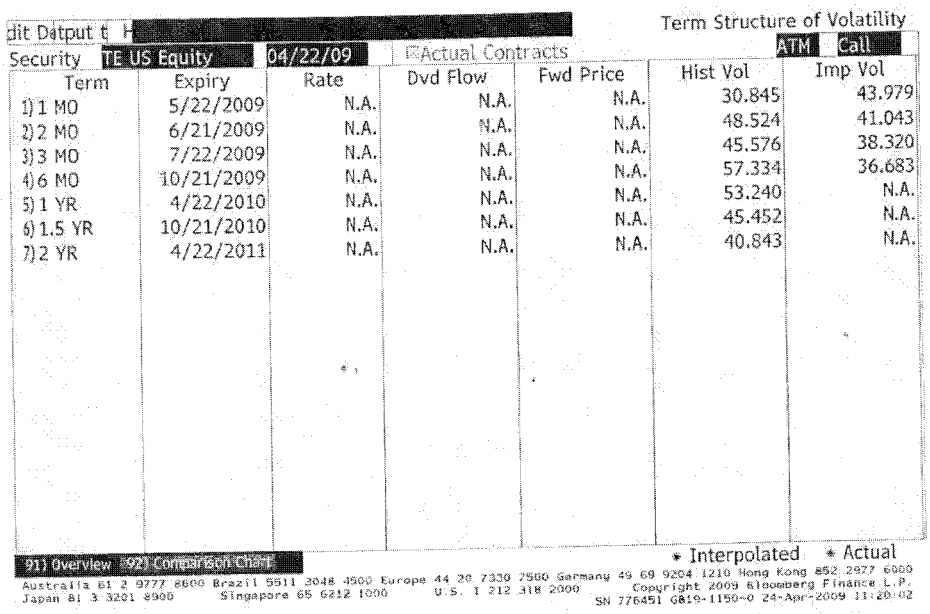
Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	19.974	30.841
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	31.492	28.556
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	29.526	28.448
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	35.077	27.866
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	32.827	28.293
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	28.906	28.263
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	27.094	N.A.

* Interpolated * Actual

EBL Exhibit 7

(Continued)

Term Structure of Volatility for CECONY Peers



dit Datput t H Term Structure of Volatility

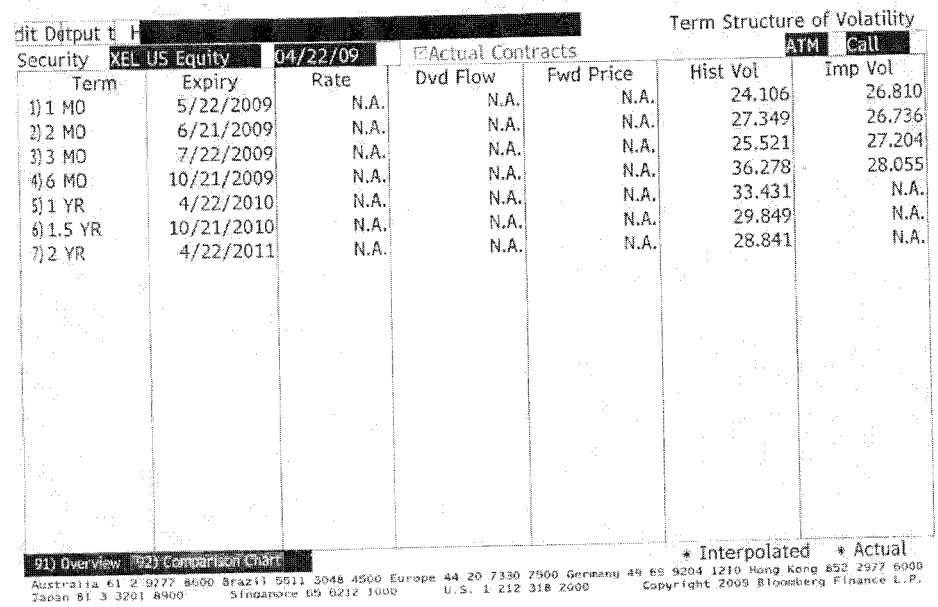
Security TE US Equity 04/22/09 Actual Contracts ATM Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	30.845	43.979
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	48.524	41.043
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	45.576	38.320
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	57.334	36.683
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	53.240	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	45.452	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	40.843	N.A.

91) Overview 92) Comparison Chart * Interpolated * Actual

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2009 Bloomberg Finance L.P.
SN 776451 G819-1150-0 24-Apr-2009 11:20:02

<HELP> for explanation. EquityTRMS



dit Datput t H Term Structure of Volatility

Security XEL US Equity 04/22/09 Actual Contracts ATM Call

Term	Expiry	Rate	Dvd Flow	Fwd Price	Hist Vol	Imp Vol
1) 1 MO	5/22/2009	N.A.	N.A.	N.A.	24.106	26.810
2) 2 MO	6/21/2009	N.A.	N.A.	N.A.	27.349	26.736
3) 3 MO	7/22/2009	N.A.	N.A.	N.A.	25.521	27.204
4) 6 MO	10/21/2009	N.A.	N.A.	N.A.	36.278	28.055
5) 1 YR	4/22/2010	N.A.	N.A.	N.A.	33.431	N.A.
6) 1.5 YR	10/21/2010	N.A.	N.A.	N.A.	29.849	N.A.
7) 2 YR	4/22/2011	N.A.	N.A.	N.A.	28.841	N.A.

91) Overview 92) Comparison Chart * Interpolated * Actual

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2009 Bloomberg Finance L.P.

EBL Exhibit 8

CECONY PEER GROUP COSTS OF EQUITY FROM OPTION MARKET IMPLIED COST OF EQUITY MODEL

1 Company	2 S&P Rating	3 30-YR Bond Yield	4 Dividend Yield	5 Stock Price	6 Forward Brkeven Price	7 Estimated Volatility	8 Black-Scholes Premium	9 Annuitized Put Premium	10 Cost of Equity
AYE	BBB-	8.68%	2.34%	$25.65	$162.17	39.31%	$49.64	18.31%	26.99%
AEP	BBB	7.39%	6.27%	$26.15	$36.47	35.79%	$9.34	2.99%	10.38%
CMS	BBB-	8.68%	4.18%	$11.95	$44.76	35.08%	$12.66	10.02%	18.70%
CNP	BBB	7.39%	7.37%	$10.31	$10.36	31.30%	$2.31	1.88%	9.26%
ED	A-	6.57%	6.27%	$37.65	$41.19	24.40%	$7.57	1.55%	8.12%
CEG	BBB	7.39%	4.27%	$22.50	$56.47	46.53%	$17.11	6.37%	13.75%
D	A-	6.57%	6.03%	$29.03	$34.12	28.50%	$7.17	1.91%	8.48%
DUK	A-	6.57%	6.70%	$13.74	$13.21	29.03%	$2.69	1.51%	8.08%
EIX	BBB-	8.68%	4.47%	$27.76	$95.67	34.47%	$27.29	9.30%	17.98%
ETR	BBB	7.39%	4.61%	$65.10	$147.99	34.74%	$39.59	5.09%	12.48%
EXC	BBB	7.39%	4.61%	$45.51	$103.45	38.61%	$28.95	5.33%	12.71%
FPL	A	6.16%	3.75%	$50.35	$102.87	33.41%	$25.80	3.79%	9.95%
FE	BBB	7.39%	5.58%	$39.44	$67.46	36.71%	$17.94	3.81%	11.19%
TEG	BBB+	7.35%	10.61%	$25.36	$9.39	38.68%	$2.04	0.67%	8.02%
POM	BBB	7.39%	9.35%	$11.53	$6.37	39.73%	$1.53	1.11%	8.50%
PCG	BBB+	7.35%	4.50%	$37.31	$86.71	29.43%	$21.73	4.86%	12.21%
PPL	BBB	7.39%	4.73%	$29.20	$64.09	34.09%	$16.94	4.86%	12.24%
PNW	BBB-	8.68%	7.82%	$26.84	$34.71	31.16%	$8.38	2.95%	11.63%
PGN	BBB+	7.35%	7.34%	$33.77	$33.88	26.05%	$6.60	1.63%	8.98%
SO	A	6.16%	5.93%	$29.48	$31.58	26.85%	$6.10	1.53%	7.69%
TE	BBB-	8.68%	7.67%	$10.43	$14.10	34.85%	$3.64	3.30%	11.98%
XEL	BBB+	7.35%	5.15%	$18.44	$35.42	26.65%	$8.17	3.70%	11.05%
AVERAGE									11.84%
MEDIAN									11.12%

Notes:
(1) All bond yields are for non-callable issues. 30 year bond yields for A- utilities were unavailable from Bloomberg. Bond yields for the 3 A- companies in this table were alternatively approximated by adding the average spread between the yields on selected long-term callable A and A- bonds issued by SO and FPL (A-rated) and the 3 A- peers.
(2) Volatility estimates derived by taking 95% of the implied volatilies of the longest dated traded options of each the peers as reported by Bloomberg
(3) Bond yields, dividend yields and stock prices are as of 4/22/09