# BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA 

# DIRECT TESTIMONY 

OF

## ROBERT B. HEVERT

ON BEHALF OF

## SOUTH CAROLINA ELECTRIC \& GAS COMPANY

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## I. INTRODUCTION

## Q. PLEASE STATE YOUR NAME, AFFILIATION AND BUSINESS ADDRESS.

A. My name is Robert B. Hevert. I am Managing Partner of Sussex Economic Advisors, LLC ("Sussex"). My business address is 161 Worcester Road, Suite 503, Framingham, Massachusetts 01701.

## Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am submitting this direct testimony ("Direct Testimony") before the Public Service Commission of South Carolina ("Commission") on behalf of South Carolina Electric \& Gas Company, referred to throughout my testimony as "SCE\&G," or the "Company."

## Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I hold a Bachelor's degree in Business and Economics from the University of Delaware, and an MBA with a concentration in Finance from the University of Massachusetts. I also hold the Chartered Financial Analyst designation.
Q. PLEASE DESCRIBE YOUR EXPERIENCE IN THE ENERGY AND UTILITY INDUSTRIES.
A. I have worked in regulated industries for over twenty five years, having served as an executive and manager with consulting firms, a financial officer of a publicly-traded natural gas utility (at the time, Bay State Gas Company), and an analyst at a telecommunications utility. In my role as a consultant, I have advised numerous energy and utility clients on a wide range of financial and economic issues including corporate and asset-based transactions, asset and enterprise valuation, transaction due diligence, and strategic matters. As an expert witness, I have provided testimony in over 80 proceedings regarding various financial and regulatory matters before numerous state
utility regulatory agencies and the Federal Energy Regulatory Commission. A summary of my professional and educational background, including a list of my testimony in prior proceedings, is included in Attachment A to my Direct Testimony.

## II. PURPOSE AND OVERVIEW OF TESTIMONY

## Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my Direct Testimony is to present evidence and provide the Commission with a recommendation regarding the Company's return on equity ("ROE") ${ }^{1}$ and to provide my determinations and opinions regarding the reasonableness of SCE\&G's capital structure. My analyses and conclusions are supported by the data presented in Exhibit No.___(RBH-1) through Exhibit No.___(RBH-8), which have been prepared by me or under my direction.

## Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE APPROPRIATE COST

 OF EQUITY AND CAPITAL STRUCTURE FOR THE COMPANY?A. My analyses indicate that the Company's Cost of Equity currently is in the range of 10.75 percent to 11.50 percent. Based on the quantitative and qualitative analyses discussed throughout my Direct Testimony, I conclude that the Company's proposed ROE of 10.95 percent is at the low end of a reasonable range of estimates of its Cost of Equity. With respect to the Company's capital structure, I conclude that the Company's proposed capital structure, consisting of 52.18 percent common equity and 47.82 percent long-term debt, is reasonable.

[^0]
## Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE ANALYSES THAT LED TO YOUR ROE RECOMMENDATION.

A. As discussed in more detail in Section VI, in light of recent market conditions, and given the fact that equity analysts and investors tend to use multiple methodologies in developing their return requirements, it is important to consider the results of several analytical approaches in determining the Company's ROE. In order to develop my ROE recommendation, I therefore applied the Constant Growth Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), and the Bond Yield Plus Risk Premium ("Risk Premium") approach. In addition to those analyses, it is important to consider a range of factors, both quantitative and qualitative, in arriving at an ROE determination.

In addition to the methodologies noted above, my recommendation also takes into consideration: (1) the incremental risks associated with the Company's need to fund substantial capital expenditures including its investment in new nuclear generation facilities; (2) the risks associated with the Company's comparatively small size; and (3) flotation costs associated with equity issuances. While I did not make any explicit adjustments to my ROE estimates for those factors, I did take them into consideration in determining the Company's Cost of Equity.

## Q. HOW IS THE REMAINDER OF YOUR DIRECT TESTIMONY ORGANIZED?

A. The remainder of my Direct Testimony is organized as follows:

Section III - Provides a summary of my conclusions and recommendations; Section IV - Discusses the regulatory guidelines and financial considerations pertinent to the development of the cost of capital;

Section V - Explains my selection of the proxy group of electric utilities used to develop my analytical results;

Section VI - Explains my analyses and the analytical bases for my ROE recommendation;

Section VII - Provides a discussion of specific business risks that have a direct bearing on the Company's Cost of Equity;

Section VIII - Highlights the current capital market conditions and the effect of those conditions on the Company's Cost of Equity;

Section IX - Addresses the reasonableness of the Company's proposed capital structure; and

Section X - Summarizes my conclusions and recommendations.

## III. SUMMARY OF CONCLUSIONS

## Q. WHAT ARE THE KEY FACTORS CONSIDERED IN YOUR ANALYSES AND UPON WHICH YOU BASE YOUR RECOMMENDED ROE?

A. My analyses and recommendations considered the following:

- The Hope and Bluefield decisions ${ }^{2}$ that established the standards for determining a fair and reasonable allowed return on equity including: consistency of the allowed return with other businesses having similar risk; adequacy of the return to provide access to capital and support credit quality; and that the end result must lead to just and reasonable rates.
- The effect of the current capital market conditions on investors' return requirements, and in particular, the Company's accelerating need to access the capital markets.
- The Company's business risks relative to the proxy group of comparable companies and the implications of those risks in arriving at the appropriate ROE.


## Q. WHAT ARE THE RESULTS OF YOUR ANALYSES?

A. The results of my analyses are summarized in Exhibit No.__(RBH-1) through Exhibit No.___(RBH-8). Based on the analytical results, and in light of the considerations discussed throughout the balance of my Direct Testimony regarding the Company's business risks relative to the proxy group, it is my view that a reasonable range of estimates is from 10.75 percent to 11.50 percent, and within that range, an ROE of 11.25 percent is reasonable and appropriate. In that regard, the Company's proposed 10.95 percent ROE is, in my view, quite conservative.

## IV. REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS

## Q. PLEASE PROVIDE A BRIEF SUMMARY OF THE GUIDELINES ESTABLISHED BY THE UNITED STATES SUPREME COURT (THE "COURT") FOR THE PURPOSE OF DETERMINING THE RETURN ON EQUITY.

A. The Court established the guiding principles for establishing a fair return for capital in two cases: (1) Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia ("Bluefield"); and (2) Federal Power Comm’n v. Hope Natural Gas Co. ("Норе"). In Bluefield, the Court stated:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. ${ }^{3}$

The Court therefore recognizes that: (1) a regulated public utility cannot remain financially sound unless the return it is allowed to earn on its invested capital is at least equal to the cost of capital (the principle relating to the demand for capital); and (2) a regulated public utility will not be able to attract capital if it does not offer investors an opportunity to earn a return on their investment equal to the return they expect to earn on other investments of similar risk (the principle relating to the supply of capital).

In Hope, the Court reiterates the financial integrity and capital attraction principles of the Bluefield case:

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock.... By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. ${ }^{4}$

In summary, the Court clearly has recognized that the fair rate of return on equity should be: (1) comparable to returns investors expect to earn on other investments of similar

[^1]risk; (2) sufficient to assure confidence in the company's financial integrity; and (3) adequate to maintain and support the company's credit and to attract capital.

## Q. DOES SOUTH CAROLINA PROVIDE SIMILAR GUIDANCE?

A. Yes. The Commission and the South Carolina courts uphold the precedents of the Hope and Bluefield cases. Specifically, the standards established in the Hope and Bluefield decisions were acknowledged by the Commission in an Order issued in 2010. ${ }^{5}$ That Order outlines four principal guidelines regarding the determination of the rate of return:
(1) The rate of return should be sufficient to allow SCE\&G the opportunity to earn a return equal to firms facing similar risks;
(2) The rate of return should be adequate to assure investors of the financial soundness of the utility and to support the utility's credit and ability to raise capital needed for on-going utility operations at reasonable cost;
(3) The rate of return should be determined with due regard for the present business and capital market conditions facing the utility;
(4) The rate of return is not formula-based, but requires an informed expert judgment by the Commission balancing the interests of shareholders and customers. ${ }^{6}$

The Hope and Bluefield standards were also recognized by the Supreme Court of South Carolina in Southern Bell Tel. \& Tel. Co. v. Public Service Comm'n of South Carolina. ${ }^{7}$

[^2] 2010, pp. 83-85.
6 Ibid., at 30 citing Docket No. 2004-178-E, Order No. 2005-2 dated January 6, 2005, p. 85.
$7 \quad$ Southern Bell Tel. \& Tel. Co. v. Public Service Comm'n of South Carolina, 244 S.E.2d 278 (1978).
Q. ASIDE FROM THE STANDARDS ESTABLISHED BY THE COMMISSION AND THE COURTS, IS IT IMPORTANT FOR A PUBLIC UTILITY TO BE ALLOWED THE OPPORTUNITY TO EARN A RETURN THAT IS ADEQUATE TO ATTRACT EQUITY CAPITAL AT REASONABLE TERMS?
A. Yes, it is. A return that is adequate to attract capital at reasonable terms, under varying market conditions, will enable the subject utility to provide safe and reliable electric service while maintaining its financial integrity. While the "capital attraction" and "financial integrity" standards are important principles in normal economic conditions, the practical implications of those standards are even more pronounced when, as with SCE\&G, the subject company has substantial capital expenditure plans. As discussed in more detail in Section VIII, sustained increases in the incremental spread on utility debt (i.e., the difference in debt yields of utilities varying credit ratings) has intensified the importance of maintaining a strong financial profile; the incremental cost of a downgrade in bond rating is more expensive now than it historically has been. ${ }^{8}$ Consequently, preserving SCE\&G's current credit profile is an important consideration in enabling the Company to access the capital markets, as needed and at reasonable cost rates.

## V. PROXY GROUP SELECTION

## Q. AS A PRELIMINARY MATTER, WHY IS IT NECESSARY TO SELECT A

 GROUP OF PROXY COMPANIES TO DETERMINE THE COST OF EQUITY FOR SCE\&G?A. First, it is important to bear in mind that the Cost of Equity for a given enterprise depends on the risks attendant to the business in which the company is engaged. According to
financial theory, the value of a given company is equal to the aggregate market value of its constituent business units. The value of the individual business units reflects the risks and opportunities inherent in the business sectors in which those units operate. In this proceeding, we are focused on estimating the Cost of Equity for SCE\&G, which is an operating subsidiary of SCANA Corporation. Since the ROE is a market-based concept and SCE\&G is not a publicly traded entity, it is necessary to establish a group of companies that are both publicly traded and reasonably comparable to the Company in certain fundamental respects to serve as its "proxy" in the ROE estimation process.

Even if SCE\&G were a publicly traded entity, it is possible that short-term events could bias its market value in one way or another during a given period of time. A significant benefit of using a proxy group, therefore, is that it serves to moderate the effects of anomalous, temporary events that may be associated with any one company.
Q. DOES THE SELECTION OF A PROXY GROUP SUGGEST THAT ANALYTICAL RESULTS WILL BE TIGHTLY CLUSTERED AROUND AVERAGE (I.E., MEAN) RESULTS?
A. Not necessarily. The DCF approach is based on the theory that a stock's current price represents the present value of its future expected cash flows. The Constant Growth form of the DCF model is defined as the sum of the expected dividend yield and projected long-term growth. Notwithstanding the care taken to ensure risk comparability, market expectations with respect to future risks and growth opportunities will vary from company to company. Therefore, even within a group of similarly situated companies, it is common for analytical results to reflect a seemingly wide range. At issue, then, is how
to estimate a Company's ROE from within that range. That determination necessarily must be based on the informed judgment and experience of the analyst.

## Q. PLEASE PROVIDE A SUMMARY PROFILE OF SCE\&G.

A. SCE\&G provides electric generation, transmission and distribution services in central, southern and southwestern portions of South Carolina to approximately 660,000 retail customers. ${ }^{9}$ SCANA's current long-term issuer credit rating from Standard \& Poor's ("S\&P") is BBB+ (outlook: Stable), Baa3 (outlook: Stable) from Moody's Investors Service ("Moody's") and BBB+ (outlook: Stable) from FitchRatings ("Fitch"). SCE\&G currently is rated $\mathrm{BBB}+$ (outlook: Stable) by $\mathrm{S} \& \mathrm{P}$ and Baa 2 (outlook: Stable) by Moody's and BBB+ (outlook: Stable) by Fitch. ${ }^{10}$

## Q. HOW DID YOU SELECT THE COMPANIES INCLUDED IN YOUR PROXY GROUP?

A. With the objective of selecting a proxy group that is highly representative of the risks and prospects faced by SCE\&G, I used the following criteria:

- I began with the universe of companies that Value Line classifies as Electric Utilities, which includes a group of 48 domestic U.S. utilities;
- I excluded companies that do not consistently pay quarterly cash dividends;
- All of the companies in my proxy group have been covered by at least two utility industry equity analysts;
- All of the companies in my proxy group have investment grade senior bond and/or corporate credit ratings from S\&P;
$\begin{array}{ll}9 & \text { SCANA Corp., } 2011 \text { SEC Form 10-K, at } 28 . \\ 10 & \text { Source: SNL Financial. }\end{array}$
- I only selected proxy companies that are vertically integrated utilities (i.e., utilities that own and operate regulated generating assets);
- I excluded companies whose regulated operating income over the three most recently reported fiscal years comprised less than 60.00 percent of the respective totals for that company;
- I excluded companies whose regulated electric operating income over the three most recently reported fiscal years represented less than 90.00 percent of total regulated operating income;
- I excluded companies whose coal-fired generation constituted less than 10.00 percent of net generation; and
- I eliminated companies that are currently known to be party to a merger, or other significant transaction.


## Q. DID YOU INCLUDE SCANA CORPORATION IN YOUR ANALYSIS?

A. No, in order to avoid the circular logic that otherwise would occur, it has been my consistent practice to exclude the subject company (or its parent) from the proxy group. In any event, SCANA would not meet my electric utility operating income screens.
Q. WHY IS IT IMPORTANT TO CONSIDER ONLY COMPANIES WHOSE RESOURCE PORTFOLIOS INCLUDE COAL-FIRED GENERATING ASSETS OF AT LEAST 10.00 PERCENT OF NET GENERATION?
A. SCE\&G's operations are heavily dependent on coal-fired generation (approximately 50.00 percent of the Company's generation). ${ }^{11}$ In general, capital-intensive base load generation assets, such as coal-fired plants, face risks associated with capital recovery in

[^3]the event of market structure changes or plant failure, or replacement cost recovery in the event of extended or unplanned outages. To that point, in a recent report regarding the effect of environmental regulations on electric utilities, Fitch Ratings stated that electric utilities will face increasing operating and capital costs, both of which would be a "credit negative." And while Fitch believes the risks may be "manageable," the increasing number of coal unit retirements will inject "a measure of risk for investors." ${ }^{12}$ As to the effect of environmental regulations on coal unit retirements, Fitch recently estimated that some 80 gigawatts of coal-fired generating capacity are at risk of early retirement. ${ }^{13}$

Federal environmental regulations creating emissions control requirements have been issued in recent years. Compliance with new regulations can require substantial capital investment, or add operational costs. For instance, the Environmental Protection Agency ("EPA") recently implemented regulations, including the Mercury and Air Toxics Standards ("MATS," previously known as the Utility MACT Rule) and the CrossState Air Pollution Rule ("CSAPR"). ${ }^{14}$ While the United States Court of Appeals for the District of Columbia rejected the latest iteration of the EPA's CSAPR, it is expected that the EPA will re-issue revised cross-state standards, and the stringency of the required emissions reductions creates substantial challenges that would require additional spending to meet emissions limits. In addition to the rules recently implemented, the EPA has proposed several regulations, such as the Coal Combustion Residuals rule and rules under section $316(\mathrm{~b})$ of the Clean Water Act governing cooling water intake structures, which could also have a material effect on coal-fired generation operators. As Ibid.
As discussed in the Direct Testimony of Stephen A. Byrne, SCE\&G installed scrubbers at Wateree Station and Williams Station to meet current Clean Air Interstate Rule ("CAIR") requirements and the MATS standards.
a result of the increased likelihood of carbon emissions regulations, as well as other emissions regulations, investors see coal generation as being more risky going forward.

Given the increasing regulatory and legislative focus on, and the costs associated with, environmental compliance for companies such as SCE\&G that are dependent on coal-fired generation, it is important to exclude companies that do not have a meaningful amount of coal-fired generation in their resource portfolio.

## Q. WHAT COMPANIES MET THOSE SCREENING CRITERIA?

A. The criteria discussed above resulted in an initial proxy group of the following thirteen companies:

Table 1: Initial Screening Results

| Company | Ticker |
| :--- | :---: |
| American Electric Power Company, Inc. | AEP |
| Cleco Corporation | CNL |
| Edison International | EIX |
| Empire District Electric Company | EDE |
| Great Plains Energy, Inc. | GXP |
| IDACORP, Inc. | IDA |
| Integrys Energy Group, Inc. | TEG |
| Otter Tail Corporation | OTTR |
| Pinnacle West Capital Corporation | PNW |
| PNM Resources, Inc. | PNM |
| Portland General Electric Company | POR |
| Southern Company | SO |
| Westar Energy, Inc. | WR |

## Q. IS THIS YOUR FINAL PROXY GROUP?

A. No, it is not. I examined the operating profile of each of the thirteen companies that met my initial screens to be certain that none displayed characteristics that were inconsistent
with my intent to produce a proxy group that is fundamentally similar to the Company. As a result, I excluded two companies based on recently published 2011 financial information. First, Edison International ("EIX") experienced significant unregulated operating losses in 2009 and 2011. In 2009, those operating losses were the result of a global tax settlement and payment to the Internal Revenue Service ("IRS"), which caused the company's unregulated marketing and trading segment to incur over $\$ 1.00$ billion in payments to settle a claim with the IRS. ${ }^{15}$ In 2011, EIX recorded a loss of $\$ 1.09$ billion in its competitive power generation segment ${ }^{16}$ resulting from an after-tax earnings charge (recorded in the fourth quarter of 2011) relating to the impairment of its Homer City, Fisk, Crawford and Waukegan power plants, wind related charges, and other expenses. ${ }^{17}$ Given the extent of those losses, it is difficult to assess the degree to which regulated electric utility operations would be expected to contribute to the company's consolidated financial performance in the near and longer terms. Consequently, I have excluded EIX from my final proxy group.

In addition, Integrys Energy Group, Inc. ("Integrys") experienced a 2009 operating loss of $\$ 114.6$ million in its Natural Gas Utility Segment due primarily to a non-cash goodwill impairment loss of $\$ 284.6$ million. ${ }^{18}$ Given that (1) Integrys' operating results since 2009 indicate that its gas utility operations consistently comprise approximately 50.00 percent of total regulated income, and (2) the company's 2009 results may not necessarily reflect its current and future operations, I have excluded Integrys from the proxy group.

[^4]Q. BASED ON THE CRITERIA AND ISSUES DISCUSSED ABOVE, WHAT IS THE COMPOSITION OF YOUR PROXY GROUP?
A. The final proxy group is presented in Table 2 (below).

Table 2: Final Proxy Group

| Company | Ticker |
| :--- | :---: |
| American Electric Power Company, Inc. | AEP |
| Cleco Corporation | CNL |
| Empire District Electric Company | EDE |
| Great Plains Energy Inc. | GXP |
| IDACORP, Inc. | IDA |
| Otter Tail Corporation | OTTR |
| Pinnacle West Capital Corporation | PNW |
| PNM Resources, Inc. | PNM |
| Portland General Electric Company | POR |
| Southern Company | SO |
| Westar Energy, Inc. | WR |

## Q. WHY DID YOU NOT INCLUDE A SCREEN REGARDING THE PRESENCE OF NUCLEAR GENERATION IN A COMPANY'S RESOURCE PORTFOLIO?

A. Imposing a screen for nuclear generation (similar to the coal generation screen) of 10.00 percent would have reduced the number of proxy companies from eleven to only six. In my judgment, rather than including a proxy group of six companies, it is more appropriate to adjust my recommended return on equity based on the incremental risks implicit in the construction and operation of nuclear generating capacity. ${ }^{19}$

## VI. COST OF EQUITY ESTIMATION

Q. PLEASE BRIEFLY DISCUSS THE ROE IN THE CONTEXT OF THE REGULATED RATE OF RETURN.
A. Regulated utilities primarily use common stock and long-term debt to finance their permanent property, plant, and equipment. The overall rate of return ("ROR") for a regulated utility is based on its weighted average cost of capital, in which the cost rates of the individual sources of capital are weighted by their respective book values. While the cost of debt and cost of preferred stock can be directly observed, the Cost of Equity is market-based and, therefore, must be estimated based on observable market information.

## Q. HOW IS THE REQUIRED ROE DETERMINED?

A. The required ROE is estimated by using one or more analytical techniques that rely on market-based data to quantify investor expectations regarding required equity returns, adjusted for certain incremental costs and risks. By their very nature, quantitative models produce a range of results from which the market required ROE must be estimated. As discussed throughout my Direct Testimony, that estimation must be based on a comprehensive review of relevant data and information, and does not necessarily lend itself to a strict mathematical solution. Consequently, the key consideration in determining the Cost of Equity is to ensure that the methodologies employed reasonably reflect investors' view of the financial markets in general and the subject company (in the context of the proxy group) in particular.

## Q. WHAT METHODS DID YOU USE TO ESTIMATE THE COMPANY'S COST OF

## EQUITY?

A. I used the Constant Growth DCF model as my initial approach and considered the results of the CAPM and Risk Premium approach in developing my ROE recommendation. In light of the capital market conditions discussed in Section VIII, I have relied primarily on the Constant Growth DCF model, and used the CAPM and Risk Premium approaches as corroborating methodologies in arriving at my ROE recommendation.

## Q. WHY DO YOU BELIEVE IT IS IMPORTANT TO USE MORE THAN ONE ANALYTICAL APPROACH?

A. Because the Cost of Equity is not directly observable, it must be estimated based on both quantitative and qualitative information. As a result, a number of models have been developed to estimate the Cost of Equity. As a practical matter, however, all of the models available for estimating the Cost of Equity are subject to limiting assumptions or other methodological constraints. Consequently, many finance texts recommend using multiple approaches when estimating the Cost of Equity. When faced with the task of estimating the Cost of Equity, analysts and investors are inclined to gather and evaluate as much relevant data as reasonably can be analyzed and, therefore, are inclined to rely on multiple analytical approaches.

In essence, practitioners and academics recognize that financial models simply are tools to be used in the ROE estimation process, and that strict adherence to any single approach, or to the specific results of any single approach, can lead to flawed or misleading conclusions. That position is consistent with the Hope and Bluefield principle that it is the analytical result, as opposed to the methodology, that is controlling in
arriving at ROE determinations. Thus, a reasonable ROE estimate appropriately considers alternate methodologies and the reasonableness of their individual and collective results.

Consequently, I believe it is both prudent and appropriate to use multiple methodologies in order to mitigate the effects of assumptions and inputs associated with relying exclusively on any single approach. Such use, however, must be tempered with due caution as to the results generated by each individual approach.

## Constant Growth DCF Model

## Q. ARE DCF MODELS WIDELY USED IN REGULATORY PROCEEDINGS?

A. Yes, in my experience the Constant Growth DCF model is widely recognized in regulatory proceedings, as well as in financial literature. Nonetheless, neither the DCF nor any other model should be applied without considerable judgment in the selection of data and the interpretation of results.

## Q. PLEASE DESCRIBE THE DCF APPROACH.

A. The DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. ${ }^{20}$ In its simplest form, the DCF model expresses the Cost of Equity as the sum of the expected dividend yield and long-term growth rate, and is expressed as follows:

$$
P=\frac{D_{1}}{(1+k)}+\frac{D_{2}}{(1+k)^{2}}+\cdots+\frac{D_{\infty}}{(1+k)^{\infty}}
$$

where $P$ represents the current stock price, $D_{1} \ldots D_{\infty}$ represent expected future dividends, and $k$ is the discount rate, or required ROE. Equation [1] is a standard present value calculation that can be simplified and rearranged into the familiar form:

$$
\begin{equation*}
k=\frac{D_{0}(1+g)}{P}+g \tag{2}
\end{equation*}
$$

Equation [2] often is referred to as the "Constant Growth DCF" model, in which the first term is the expected dividend yield and the second term is the expected long-term annual growth rate.
Q. WHAT ASSUMPTIONS ARE REQUIRED FOR THE CONSTANT GROWTH DCF MODEL?
A. The Constant Growth DCF model requires the following assumptions: (1) a constant average annual growth rate for earnings and dividends; (2) a stable dividend payout ratio; (3) a constant price-to-earnings multiple; and (4) a discount rate greater than the expected growth rate.
Q. WHAT MARKET DATA DID YOU USE TO CALCULATE THE DIVIDEND YIELD COMPONENT OF YOUR DCF MODEL?
A. The dividend yield is based on the proxy companies' current annualized dividend, and average closing stock prices over the 30,90 , and 180 -trading day periods as of August 17, 2012.
Q. WHY DID YOU USE THREE AVERAGING PERIODS TO CALCULATE AN AVERAGE STOCK PRICE?
A. I did so to ensure that the model's results are not skewed by anomalous events that may affect stock prices on any given trading day. At the same time, the averaging period should be reasonably representative of expected capital market conditions over the long
term. In my view, the use of the $30-$, 90 -, and 180 -day averaging periods reasonably balances those concerns.

## Q. DID YOU MAKE ANY ADJUSTMENTS TO THE DIVIDEND YIELD TO ACCOUNT FOR PERIODIC GROWTH IN DIVIDENDS?

A. Yes, I did. Since utility companies tend to increase their quarterly dividends at different times throughout the year, it is reasonable to assume that dividend increases will be evenly distributed over calendar quarters. Given that assumption, it is appropriate to calculate the expected dividend yield by applying one-half of the long-term growth rate to the current dividend yield. ${ }^{21}$ That adjustment ensures that the expected dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the dividends to be paid during that time.

## Q. IS IT IMPORTANT TO SELECT APPROPRIATE MEASURES OF LONGTERM GROWTH IN APPLYING THE DCF MODEL?

A. Yes. In its Constant Growth form, the DCF model (i.e., as presented in Equation [2] above) assumes a single growth estimate in perpetuity. In order to reduce the long-term growth rate to a single measure, one must assume a constant payout ratio, and that earnings per share, dividends per share, and book value per share all grow at the same constant rate. Over the long term, however, dividend growth can only be sustained by earnings growth. Consequently, it is important to incorporate a variety of measures of long-term earnings growth into the Constant Growth DCF model.
$\qquad$ (RBH-1).

## Q. PLEASE SUMMARIZE YOUR INPUTS TO THE CONSTANT GROWTH DCF

 MODEL.A. I applied the DCF model to the proxy group of integrated electric utility companies using the following inputs for the price and dividend terms:

1. The average daily closing prices for the 30 -trading days, 90 -trading days, and 180-trading days ended August 17, 2012, for the term $\mathrm{P}_{0}$; and
2. The annualized dividend per share as of August 17,2012 , for the term $\mathrm{D}_{0}$. I then calculated my DCF results using each of the following growth terms:
3. The Zacks consensus long-term earnings growth estimates;
4. The First Call consensus long-term earnings growth estimates; and
5. The Value Line long-term earnings growth estimates.

## Q. HOW DID YOU CALCULATE THE HIGH AND LOW DCF RESULTS?

A. I calculated the proxy group mean and median high DCF results using the maximum EPS growth rate as reported by Value Line, Zack's, and First Call for each proxy group company in combination with the dividend yield for each of the proxy group companies. The proxy group mean and median high results then reflect the average maximum DCF result for the proxy group as a whole. I used a similar approach to calculate the proxy group mean and median low results using instead the minimum growth rate as reported by Value Line, Zack's, and First Call for each proxy group company. However, the mean and median low results are below reasonable estimates of investors' required rate of return for investment in vertically integrated electric utilities of comparable risk to SCE\&G.

## Q. WHAT ARE THE RESULTS OF YOUR DCF ANALYSIS?

A. My Constant Growth DCF results are summarized in Exhibit No.___(RBH-1). The mean DCF results for my proxy group are 10.54 percent, 10.71 percent, and 10.79 percent for the $30-$, 90 -, and 180 -trading day periods, respectively. The mean high DCF results for the $30-, 90-$, and 180 -day averaging periods are 13.03 percent, 13.21 percent, and 13.29 percent respectively. ${ }^{22}$

## Q. DID YOU UNDERTAKE ANY ADDITIONAL ANALYSES TO SUPPORT YOUR RECOMMENDATION?

A. Yes. As noted earlier, I also applied the CAPM and Risk Premium analysis in estimating the Company's Cost of Equity.

## CAPM Analysis

## Q. PLEASE BRIEFLY DESCRIBE THE GENERAL FORM OF THE CAPM

 ANALYSIS.A. The CAPM analysis is a risk premium approach that estimates the Cost of Equity for a given security as a function of a risk-free return plus a risk premium (to compensate investors for the non-diversifiable or "systematic" risk of that security). As shown in Equation [3], the CAPM is defined by four components, each of which theoretically must be a forward-looking estimate:

$$
\begin{equation*}
k=r_{f}+\beta\left(r_{m}-r_{f}\right) \tag{3}
\end{equation*}
$$

Where:

$$
\begin{aligned}
& k=\text { the required market ROE; } \\
& \beta=\text { Beta coefficient of an individual security; }
\end{aligned}
$$

[^5]$r_{f}=$ the risk-free rate of return; and
$r_{m}=$ the required return on the market as a whole.
In Equation [3], the term $\left(r_{m}-r_{f}\right)$ represents the Market Risk Premium. ${ }^{23}$ According to the theory underlying the CAPM, since unsystematic risk can be diversified away by adding securities to their investment portfolio, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by the Beta coefficient, which is defined as:
$$
\beta_{j}=\frac{\sigma_{j}}{\sigma_{m}} \times \rho_{j, m}
$$
where $\sigma_{j}$ is the standard deviation of returns for company " $j$, " $\sigma_{m}$ is the standard deviation of returns for the broad market (as measured, for example, by the S\&P 500 Index), and $\rho_{j, m}$ is the correlation of returns in between company $j$ and the broad market. Thus, the Beta coefficient represents both relative volatility (i.e., the standard deviation) of returns, and the correlation in returns between the subject company and the overall market.

## Q. HAS THE CAPM BEEN AFFECTED BY RECENT ECONOMIC CONDITIONS?

A. Yes, recent economic conditions have affected all three components of the model. First, as noted above, the risk-free rate, " $r_{f}$," in the CAPM formula is represented by the yield on long-term U.S. Treasury securities. As discussed in Section VIII (below), during periods of increased equity market volatility investors tend to allocate their capital to low-risk securities such as Treasury bonds. In addition, since the 2008 Lehman Brothers bankruptcy filing, the Federal Reserve has focused on maintaining low long-term interest rates. Consequently, the first term in the model (i.e. the risk-free rate) is lower than it

23 The Market Risk Premium is defined as the incremental return of the market over the risk-free rate.
would have been absent the elevated degree of risk aversion and government intervention that has, at least in part, resulted in historically low Treasury yields.

However, the capital markets continue to change, by some measures quite significantly. For example, in the 90 trading days ended August 17, 2012, the 30-year Treasury yield ranged from a low of 2.46 percent to a high of 3.22 percent. ${ }^{24}$ In that regard, it is important to recognize that several capital market indices may continue to be quite volatile. As also discussed in Section VIII, the persistently high level of correlations between electric utility stocks and the broad market has put upward pressure on Beta coefficients (that is, the second term in the model).

Finally, as a result of the extraordinary loss in equity values during 2008, the Market Risk Premium, when measured on a historical basis, actually decreased from the prior year, even though other measures of risk sentiment, in particular market volatility, indicated extremely high levels of risk aversion. That result is, of course, counterintuitive. While the subsequent market rally resulted in a somewhat higher historical average Market Risk Premium, it still remains below its pre-financial crisis level.

## Q. WITH THOSE OBSERVATIONS IN MIND, WHAT ASSUMPTIONS DID YOU INCLUDE IN YOUR CAPM ANALYSIS?

A. Since utility assets represent long-term investments, I used three different estimates of the risk-free rate component of the CAPM analysis: (1) the current 30-day average yield on 30-year Treasury bonds (i.e., 2.65 percent); (2) the near-term projected 30-year Treasury
yield (i.e., 3.00 percent); ${ }^{25}$ and (3) the long-term projected 30 -year Treasury yield (i.e., 5.30 percent). ${ }^{26}$
Q. WHAT MARKET RISK PREMIUM DID YOU USE IN YOUR CAPM ANALYSIS?
A. For the reasons discussed above, I did not use a historical average; rather, I developed two forward-looking (ex-ante) estimates of the Market Risk Premium.

## Q. PLEASE DESCRIBE YOUR FIRST EX-ANTE APPROACH TO ESTIMATING THE MARKET RISK PREMIUM.

A. The first approach is based on the market required return, less the current 30 -year Treasury bond yield. To estimate the market required return, I calculated the market capitalization weighted average ROE based on the Constant Growth DCF model. To do so, I relied on data from two sources: (1) Bloomberg and (2) Capital IQ. For both Bloomberg and Capital IQ, I calculated the market capitalization weighted expected dividend yield (using the same one-half growth rate assumption described earlier) and combined that amount with the market capitalization weighted projected earnings growth rate to arrive at the market capitalization weighted average DCF result. I then subtracted the current 30 -year Treasury yield from that amount to arrive at the market DCF-derived ex-ante Market Risk Premium estimate. The results of those two calculations are provided in Exhibit No.__(RBH-2).

[^6]
## Q. PLEASE NOW DESCRIBE THE SECOND EX-ANTE APPROACH.

A. The second approach assumes a constant Sharpe Ratio, which is the ratio of the Risk Premium relative to the risk, or standard deviation of a given security or index of securities. The Sharpe Ratio is relied upon by financial professionals to assess the incremental return received for holding a risky (i.e., more volatile) asset rather than a risk-free (i.e., less volatile) asset. The formula for calculating the Sharpe Ratio is expressed as follows:

$$
\begin{equation*}
S_{x}=\frac{\left(R_{x}-R_{f}\right)}{\sigma_{x}} \tag{5}
\end{equation*}
$$

where:

$$
\begin{aligned}
& S_{x}=\text { Sharpe Ratio for security " } x " ; \\
& R_{x}=\text { the average return of " } x " ; \\
& R_{f}=\text { the rate of return of a risk-free security; and } \\
& \sigma_{x}=\text { the standard deviation of } r_{x .}
\end{aligned}
$$

As shown in Exhibit No.___(RBH-2), the constant Sharpe Ratio is the ratio of the historical Market Risk Premium of 6.60 percent (the numerator of Equation [5] above) and the historical market volatility of 20.30 percent (the denominator of Equation [5]). ${ }^{27}$ The expected Market Risk Premium is then calculated as the product of the Sharpe Ratio and the expected market volatility. For the purpose of that calculation, I used the 30-day average of the Chicago Board Options Exchange's ("CBOE") three-month volatility index (i.e., the VXV) and the average of settlement prices over the same 30-day period of

The standard deviation is calculated from data provided by Morningstar in its annual Valuation Yearbook. (See, Morningstar Inc., Ibbotson SBBI 2011 Valuation Yearbook, Large Company Stocks: Total Returns Table B-1, at 162-163). I recognize that the VIX forward settlement prices are liquid for approximately six to eight months; nonetheless, that data represents a market-based measure of expected volatility that should be considered in estimating the ex-ante Market Risk Premium.
futures on the CBOE's one-month volatility index (i.e., the VIX) for January 2013 through March 2013.

## Q. HOW DID YOU APPLY YOUR EXPECTED MARKET RISK PREMIUM AND RISK-FREE RATE ESTIMATES?

A. I relied on each of the ex-ante Market Risk Premia discussed above, together with the current, near-term projected, and long-term projected 30-year Treasury bond yields as inputs to my CAPM analyses.

## Q. WHAT BETA COEFFICIENTS DID YOU USE IN YOUR CAPM MODEL?

A. I considered two methods of calculation. My first approach simply employs the average reported Beta coefficient from Bloomberg and Value Line for each of the proxy group companies. While both of those services adjust their calculated (or "raw") Beta coefficients to reflect the tendency of the Beta coefficient to regress to the market mean of 1.00, Value Line calculates the Beta coefficient over a five-year period, while Bloomberg's calculation is based on two years of data. I also calculated Beta coefficients over a more recent time period to provide a more current view as to investors' perspectives with respect to the systematic risk represented by the proxy group companies.

## Q. PLEASE DESCRIBE HOW YOU CALCULATED THE MEAN ADJUSTED BETA

 COEFFICIENT FOR YOUR PROXY GROUP.A. As shown in Equation [4], the Beta coefficient is calculated as the ratio of the standard deviation of returns for the subject company and the market, respectively, multiplied by the correlation of returns between the two. I therefore calculated the "raw" Beta coefficient for each member of the proxy group, based on Equation [4], and adjusted
those raw Beta coefficients to address the tendency to regress toward the market Beta coefficient of unity. For the purpose of that calculation, I used weekly returns and calculated the standard deviation and correlations over the 12-month period ended August 17, 2012. Averaging those results produces an adjusted Beta coefficient of 0.70.

## Q. HOW AND WHY DID YOU ADJUST THE RAW BETA COEFFICIENT?

A. I adjusted my raw Beta coefficient consistent with the methodology used by Bloomberg, which multiplies the raw Beta coefficient by 0.67 , and adds 0.33 to that product. The purpose of that adjustment is to reflect the results of substantial academic research indicating that, over time, raw Beta coefficients tend to regress to the market mean of $1.00 .^{28}$
Q. PLEASE EXPLAIN WHY YOU RELIED ON A 12-MONTH ESTIMATE OF THE PROXY GROUP MEAN ADJUSTED BETA COEFFICIENT. ${ }^{29}$
A. As noted in Section VIII, while volatility in the broad market and the utility sector recently have begun to moderate, the correlation in returns has remained at historically elevated levels. And, as discussed above, the Market Risk Premium tends to change over time. In my view, the use of Beta coefficients calculated over shorter periods is consistent with the notion that market conditions, and the risk premium required by

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investors in response to those conditions, also may change over shorter periods. ${ }^{30}$ In any case, by relying on both Value Line and Bloomberg, my CAPM analysis reflects Beta Coefficients calculated over longer periods, as well.

## Q. IS YOUR CALCULATED BETA COEFFICIENT REASONABLE RELATIVE TO THOSE CALCULATED BY VALUE LINE AND BLOOMBERG?

A. Yes, it is. As shown in Exhibit No.___(RBH-3), the proxy group average Value Line, Bloomberg, and Calculated Beta Coefficients are $0.74,0.69$, and 0.70 , respectively. In light of the market dynamics noted earlier, the calculated Beta coefficient reasonably reflects current conditions, although it is not materially different than those provided by Value Line and Bloomberg.

## Q. WHAT ARE THE RESULTS OF YOUR CAPM ANALYSES?

A. The results of my CAPM analysis are summarized in Exhibit No.__(RBH-4). Applying the 12 -month Beta coefficient estimate suggests a range of returns from 8.25 percent to 12.74 percent with a mean result of 10.43 percent. Relying on the Bloomberg estimates of the Beta coefficient, the results of my CAPM analysis suggest a range of returns from 8.17 percent to 12.63 percent with a mean result of 10.33 percent. Finally, applying the Value Line estimates of the Beta coefficient, the results of my CAPM analysis produces a range of results from 8.55 percent to 13.14 percent with a mean result of 10.79 percent.
Q. DOES YOUR RECOMMENDATION SUBSTANTIALLY RELY ON THE CAPM RESULTS?
A. No, it does not. While I have calculated the CAPM using the approaches and assumptions discussed above, I did not give any specific weight to those results. Rather, I used the CAPM results to assess the DCF results discussed earlier.

## Bond Yield Plus Risk Premium Approach

## Q. PLEASE GENERALLY DESCRIBE THE BOND YIELD PLUS RISK PREMIUM

 APPROACH.A. In general terms, this approach is based on the fundamental principle that equity investors bear the residual risk associated with ownership and therefore require a premium over the return they would have earned as a bondholder. That is, since returns to equity holders are more risky than returns to bondholders, equity investors must be compensated for bearing that risk. Risk premium approaches, therefore, estimate the cost of equity as the sum of the Equity Risk Premium ${ }^{31}$ and the yield on a particular class of bonds. As noted in my discussion of the CAPM, since the Equity Risk Premium is not directly observable, it typically is estimated using a variety of approaches, some of which incorporate ex-ante, or forward-looking estimates of the cost of equity, and others that consider historical, or ex-post, estimates. An alternative approach is to use actual authorized returns for electric utilities to estimate the Equity Risk Premium.

## Q. <br> PLEASE EXPLAIN HOW YOU PERFORMED YOUR BOND YIELD PLUS RISK PREMIUM ANALYSIS.

A. As discussed above, I first defined the Risk Premium as the difference between the authorized ROE and the then-prevailing level of long-term (i.e., 30-year) Treasury yield. I also calculated the average period between the filing of the case and the date of the final order (the "lag period"). In order to reflect the prevailing level of interest rates during the pendency of the proceedings, I calculated the average 30-year Treasury yield over the average lag period (approximately 202 days).

Because the data covers a number of economic cycles, ${ }^{32}$ the analysis also may be used to assess the stability of the Equity Risk Premium. Prior research, for example, has shown that the Equity Risk Premium is inversely related to the level of interest rates. ${ }^{33}$ That analysis is particularly relevant given the historically low level of current Treasury yields.

## Q. HOW DID YOU MODEL THE RELATIONSHIP BETWEEN INTEREST RATES

## AND THE EQUITY RISK PREMIUM?

A. The basic method used was regression analysis, in which the observed Equity Risk Premium is the dependent variable, and the average 30 -year Treasury yield is the independent variable. Relative to the long-term historical average, the analytical period includes interest rates and authorized ROEs that are quite high during one period (i.e., the 1980s) and that are quite low during another (the post-Lehman bankruptcy period).

Therefore, to account for this variability I used the semi-log regression, in which the Equity Risk Premium is expressed as a function of the natural log of the 30 -year Treasury yield:

$$
R P=\alpha+\beta\left(\operatorname{LN}\left(T_{30}\right)\right)
$$

As shown on Chart 1 (below), the semi-log form is useful when measuring an absolute change in the dependent variable (in this case, the Risk Premium) relative to a proportional change in the independent variable (the 30-year Treasury yield).

## Chart 1: Equity Risk Premium



As Chart 1 illustrates, over time there has been a statistically significant, negative relationship between the 30 -year Treasury yield and the Equity Risk Premium. Consequently, simply applying the long-term average Equity Risk Premium of 4.33 percent (see Exhibit No.__(RBH-5)) would significantly understate the Cost of Equity and produce results well below any reasonable estimate. Based on the regression coefficients in Chart 1, however, the implied ROE is between 10.27 percent and 10.87 percent (see Exhibit No.___(RBH-5)). In any event, the analysis demonstrates that there
has been a significant inverse relationship between the 30 -year Treasury yield and the Equity Risk Premium.

## VII. BUSINESS RISKS


#### Abstract

Q. DO THE MEAN DCF AND CAPM RESULTS FOR THE PROXY GROUP PROVIDE AN APPROPRIATE ESTIMATE OF THE COST OF EQUITY FOR SCE\&G? A. No, the mean results do not necessarily provide an appropriate estimate of the Company's Cost of Equity. In my view, there are several additional factors that must be taken into consideration when determining where the Company's Cost of Equity falls within the range of results. These factors include the Company's planned capital investment program, the Company's investment in new nuclear generation facilities, the Company's comparatively small size, and the costs associated with the flotation of common stock. These risk factors, which are discussed below, should be considered in terms of their overall effect on the Company's business risk.


## Planned Capital Expenditures

## Q. PLEASE BRIEFLY SUMMARIZE THE COMPANY'S CAPITAL INVESTMENT

 PLANS.A. As shown on Tables 3 and 4 below, SCE\&G expects approximately $\$ 4.00$ billion of additional capital needs over 2012-2014.

Table 3: SCE\&G Capital Expenditure Estimate ${ }^{34}$

| ESTIMATED CASH OUTLAYS <br> (IN \$MILLIONS) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ |
| SCE\&G - Normal |  |  |  |
| Generation | $\$ 143$ | $\$ 96$ | $\$ 79$ |
| Transmission \& Distribution | $\$ 197$ | $\$ 217$ | $\$ 190$ |
| Other | $\$ 26$ | $\$ 14$ | $\$ 21$ |
| Common | $\$ 14$ | $\$ 18$ | $\$ 13$ |
| Total SCE\&G | $\mathbf{\$ 3 8 0}$ | $\$ 345$ | $\$ 303$ |

As described in the Direct Testimony of Jimmy E. Addison, SCE\&G must finance improvements to its system and meet the other capital obligations required to operate a reliable and efficient electric system accounting for more than $\$ 1.00$ billion in planned capital expenditures. In addition, the expected cash outlays for SCE\&G associated with new nuclear construction are provided in Table 4.

Table 4: SCE\&G Nuclear Construction Capital Expenditure Estimate ${ }^{35}$

| ESTIMATED CASH OUTLAYS FOR NUCLEAR CONSTRUCTION <br> (IN \$MILLIONS) |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ |
| New Nuclear | $\$ 711$ | $\$ 970$ | $\$ 998$ |

## Q. DO CREDIT RATING AGENCIES RECOGNIZE RISKS ASSOCIATED WITH

 INCREASED CAPITAL EXPENDITURES?A. Yes, they do. From a credit perspective, the additional pressure on cash flows associated with high levels of capital expenditures exerts corresponding pressure on credit metrics and, therefore, credit ratings. S\&P has noted several long-term challenges for utilities' financial health including heavy construction programs to address demand growth,
declining capacity margins, and aging infrastructure and regulatory responsiveness to mounting requests for rate increases. S\&P further noted that:

To sustain their current credit quality in the face of these long-lived challenges, utilities need to have established-and be able to maintain-a firm credit foundation. This will require a strong and effective working relationship among management, regulators, and increasingly legislators and governors, in the planning and execution of strategies. A comprehensive vetting and understanding of the risks associated with the regulatory mechanisms under which the utility will recover its investment, which could include a cash return during construction and timely recognition of volatile costs, will be paramount in preserving creditworthiness. ${ }^{36}$

In its recent report on SCE\&G, S\&P specifically noted the risks associated with significant capital expenditures resulting from the construction of two nuclear power plants. In that regard, S\&P stated:

The new units, while they are evolutions of existing plant designs, have significant first-of-a-kind risk. The scope of the project is material relative to the size of SCANA's overall operations and balance sheet and has a long-term horizon, necessitating that not only the construction of the two proposed nuclear units is completed on schedule and on budget, but that all other aspects of the company perform favorably and that regulatory support for the remaining regulated utility operations is sustained. Standard \& Poor's believes that the proposed construction increases business risk through the associated construction risk, stresses the company's financial risk profile, and pressures the consolidated credit profile. ${ }^{37}$

The rating agency views noted above also are consistent with certain observations made earlier in my Direct Testimony: (1) the benefits of maintaining a strong financial profile are significant when capital access is required and become particularly acute during periods of market instability; and (2) the Commission's decision in this proceeding will
have a direct bearing on the Company's credit profile and its ability to access the capital needed to fund its investments.

## Q. ARE EQUITY INVESTORS ALSO CONCERNED WITH COMPARATIVELY HIGH LEVELS OF CAPITAL EXPENDITURES?

A. Yes, equity investors also recognize the pressure on cash flows associated with relatively high levels of capital expenditures. For example, KeyBanc Capital Markets ("KeyBanc") conducts a quarterly review of the electric utility industry. In a recent report, KeyBanc noted that:

Credit and liquidity concerns have driven many companies to revisit capital spending plans and reassess operational efficiencies. The primary response has generally been to delay projects, as opposed to outright cancellation. Initially, reductions in capital programs were a function of lower growth, which eliminated the need for growth-related capital spending on items such as line extensions and new substations. However, as difficult economic conditions persist, the cuts have grown more extensive, with deferrals in non-core maintenance spending, reevaluating the cost-effectiveness of running older inefficient power plants and pursuing company restructurings or mergers. ${ }^{38}$

More recently, KeyBanc noted that:
While recent prices may have come off of their earlier highs due to the global economic crisis slowing construction demand, we believe the longterm trend of rising construction materials costs could resume as the global economy rebounds. The cost of building new generation remains a moving target, as worldwide demand for construction materials commodities (steel, concrete and copper), labor and components (turbines and boilers) would remain fundamentally strong, driven by a rebound in the U.S. and Chinese economies and required compliance with future U.S. environmental regulations. We believe this presents challenges to both unregulated and regulated investment in new generation plants. In particular, on the regulated side, there exists a chicken-and-egg problem in that securing pricing without a regulatory buy-in is as difficult as receiving regulatory pre-approval without firm pricing. ${ }^{39}$
Q. HAVE EQUITY INVESTORS COMMENTED ON THE RISKS ASSOCIATED WITH THE COMPANY'S NUCLEAR CONSTRUCTION PLANS?
A. Yes. Investors have observed the risks associated with the Company's nuclear plant construction. In particular, Bank of America-Merrill Lynch observed:
[SCANA] has a regulatory framework for the new nuclear plants, providing up-front prudence decisions and real-time cost recovery. Despite these protections, we see a higher risk profile for [SCANA] given 1) the new technology nature of new nuclear, 2) the risk of rising construction costs and delays, and 3) the high concentration of its growth focused on one asset. ${ }^{40}$

As noted, due to the nature of the planned capital expenditures, investors perceive an incremental level of risk despite the risk mitigating effect of the regulatory framework in place.
Q. DO THE PROXY GROUP COMPANIES DISPLAY A SIMILAR RISK PROFILE?
A. No, they do not. Of the eleven companies in my final proxy group, only Southern Company is sponsoring the development and construction of a new nuclear generating facility. While the Company has a cost recovery mechanism in place, this mechanism is not an explicit guarantee; therefore, the investment community still views such capital spending as an incremental risk. This perceived risk should be factored into the Commission's authorized ROE in order to provide investors with a fair return on their invested capital. Based on this review and the fact that the majority of companies in my proxy group are not exposed to the risks inherent in sponsoring a new nuclear generating facility, I believe that the Company's nuclear investment program must be considered in determining where within the range of analytical results the ROE appropriately falls.

## Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE EFFECT OF THE COMPANY'S CAPITAL SPENDING PLANS ON ITS RISK PROFILE?

A. It is clear that on a relative basis, the Company's capital expenditure program is significant. It also is clear that the financial community recognizes the additional risks associated with substantial capital expenditures and, particularly, capital expenditures for new nuclear generation. In my view, these factors suggest the financial community views SCE\&G as having a comparatively high level of risk relative to the proxy group. This is one reason that suggests that an authorized ROE at the higher end of my estimated range of reasonableness is appropriate, and the Company's proposed ROE is, in my view, conservative.

## Small Size Premium

## Q. PLEASE EXPLAIN THE RISK ASSOCIATED WITH SMALL SIZE.

A. Both the financial and academic communities have long accepted the proposition that the Cost of Equity for small firms is subject to a "size effect." ${ }^{41}$ While empirical evidence of the size effect often is based on studies of industries beyond regulated utilities, utility analysts also have noted the risks associated with small market capitalizations. Specifically, Ibbotson Associates noted that "[f]or small utilities, investors face additional obstacles, such as smaller customer base, limited financial resources, and a lack of diversification across customers, energy sources, and geography. These obstacles imply a higher investor return. ${ }^{, 42}$ Small size, therefore, leads to two categories of increased risk for investors: (1) liquidity risk (i.e., the risk of not being able to sell one's shares in a
${ }^{41}$ See Mario Levis, The record on small companies: A review of the evidence, Journal of Asset Management, March 2002, for a review of literature relating to the size effect. Michael Annin, Equity and the Small-Stock Effect, Public Utilities Fortnightly, October 15, 1995.

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timely manner due to the relatively thin market for the securities); and (2) fundamental business risks.

## Q. HOW DOES SCE\&G COMPARE IN SIZE TO THE PROXY COMPANIES?

A. SCE\&G is smaller than the average for the proxy group companies both in terms of number of customers and annual revenues. Exhibit No.__(RBH-6) estimates the implied market capitalization for SCE\&G (i.e., the implied market capitalization if SCE\&G were a stand-alone, publicly traded entity). That is, because SCE\&G is not a separately traded entity, an estimated stand-alone market capitalization for SCE\&G must be calculated. The implied market capitalization of SCE\&G is calculated by applying the median market-to-book ratio for the proxy group of 1.36 to the Company's implied total common equity of $\$ 2.54$ billion. ${ }^{43}$ The implied market capitalization based on that calculation is $\$ 3.46$ billion, compared to the proxy group average of $\$ 7.69$ billion, which indicates SCE\&G is approximately half the size of the proxy group average on a market capitalization basis.

## Q. HOW DOES THE COMPARATIVELY SMALL SIZE OF SCE\&G AFFECT ITS BUSINESS RISKS RELATIVE TO THE PROXY GROUP OF COMPANIES?

A. In general, smaller companies are less able to withstand adverse events that affect their revenues and expenses. Capital expenditures for non-revenue producing investments such as system maintenance and replacements will put proportionately greater pressure on customer costs, potentially leading to customer attrition or demand reduction. These risks affect the return required by investors for smaller companies.
Q. HAVE YOU CONSIDERED THE COMPARATIVELY SMALL SIZE OF SCE\&G IN YOUR RECOMMENDED RETURN ON COMMON EQUITY?
A. Yes. Rather than proposing a specific premium, I have considered the small size of SCE\&G in my assessment of business risks in order to determine where, within a reasonable range of returns, SCE\&G's required ROE appropriately falls. In that regard, SCE\&G's comparatively small size further supports my conclusion that an ROE at the higher end of my recommended range is reasonable and appropriate, and the Company's proposed ROE is, in my view, conservative.

## Q. HOW DID YOU EVALUATE THE RISKS ASSOCIATED WITH SMALL SIZE?

A. In its Risk Premia Over Time Report: 2012, Morningstar Inc. ("Morningstar") presents its calculation of the size premium for deciles of market capitalizations relative to the S\&P 500 Index. As shown on Exhibit No. $\qquad$ (RBH-6), based on recent market data, the average market capitalization of the proxy group is approximately $\$ 7.69$ billion, and the median market capitalization of the proxy group is $\$ 2.62$ billion, which correspond to the second and fourth deciles, respectively, of Morningstar's market capitalization data. Based on the Morningstar analysis, the proxy group has a size premium of 0.78 percent to 1.17 percent. The implied market capitalization for SCE\&G is approximately $\$ 3.46$ billion, which falls within the fourth decile and corresponds to a size premium of 1.17 percent, suggesting that a size premium as high as 39 basis points ( 1.17 percent -0.78 percent) is expected for SCE\&G relative to the proxy group. However, rather than propose a specific adjustment, I considered the effect of small size in determining where the Company's ROE falls within the range of results.

## Flotation Costs

## Q. WHAT ARE FLOTATION COSTS?

A. Flotation costs are the costs associated with the sale of new issues of common stock. These costs include out-of-pocket expenditures for preparation, filing, underwriting, and other costs of issuance of common stock.
Q. WHY IS IT IMPORTANT TO RECOGNIZE FLOTATION COSTS IN THE ALLOWED RETURN ON EQUITY?
A. In order to attract and retain new investors, a regulated utility must have the opportunity to earn a return that is both competitive and compensatory. To the extent that a company is denied the opportunity to recover prudently incurred flotation costs, actual returns will fall short of expected (or required) returns, thereby diminishing its ability to attract adequate capital on reasonable terms.

## Q. ARE FLOTATION COSTS PART OF THE UTILITY'S INVESTED COSTS OR PART OF THE UTILITY'S EXPENSES?

A. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet under "paid in capital." They are not current expenses, and therefore are not reflected on the income statement. Rather, like investments in rate base or the issuance costs of long-term debt, flotation costs are incurred over time. As a result, the great majority of a utility's flotation costs are incurred prior to the test year, but remain part of the cost structure that exists during the test year and beyond and, as such, should be recognized for ratemaking purposes. Therefore, recovery of flotation costs is appropriate even if no new issuances are planned in the near future because failure to
allow such cost recovery may deny the Company the opportunity to earn its required rate of return in the future.

## Q. IS THE NEED TO CONSIDER FLOTATION COSTS ELIMINATED BECAUSE THE COMPANY IS A SUBSIDIARY OF SCANA?

A. No. Although the Company is a wholly-owned subsidiary of SCANA, it is appropriate to consider flotation costs because wholly-owned subsidiaries receive equity capital from their parents and provide returns on the capital that roll up to the parent, which is designed to attract and raise capital based on the returns of those subsidiaries. To deny recovery of issuance costs associated with the capital that is invested in the subsidiaries ultimately will penalize the investors that fund the utility operations and will inhibit the utility's ability to obtain new equity capital at a reasonable cost.

## Q. DOES THE DCF MODEL OR THE CAPM ALREADY INCORPORATE INVESTOR EXPECTATIONS OF A RETURN THAT COMPENSATES FOR FLOTATION COSTS?

A. No. All the models used to estimate the appropriate ROE assume no "friction" or transaction costs, as these costs are not reflected in the market price (in the case of the DCF model) or risk premium (in the case of the CAPM). Therefore, it is appropriate to consider flotation costs when determining where within the range of reasonable results the Company's return should fall.
Q. IS THE NEED TO CONSIDER FLOTATION COSTS RECOGNIZED BY THE ACADEMIC AND FINANCIAL COMMUNITIES?
A. Yes. Several economists have recognized that the flotation cost adjustment is made not to reflect current or future financing costs, but rather to compensate investors for costs
incurred for all past issuances comprising the total equity portion of the Company's capitalization. An article in The Journal of Finance, for example, observed that:

Under the conventional approach, in other words, the flotation cost adjustment is not made to reflect current or future financing costs.... [I]t is made to compensate investors for costs incurred in preceding stock issues. ${ }^{44}$

The need to reimburse for equity issuance costs is justified by the academic and financial communities in the same spirit that investors are reimbursed for the costs of issuing debt. This treatment is consistent with the philosophy of a fair rate of return. According to Dr. Shannon Pratt:


#### Abstract

Flotation costs occur when a company issues new stock. The business usually incurs several kinds of flotation or transaction costs, which reduce the actual proceeds received by the business. Some of these are direct out-of-pocket outlays, such as fees paid to underwriters, legal expenses, and prospectus preparation costs. Because of this reduction in proceeds, the business's required returns must be greater to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the net cash flow to discount, or by incorporating the cost into the cost of equity capital. Since flotation costs typically are not applied to operating cash flow, they must be incorporated into the cost of equity capital. ${ }^{45}$


## Q. HOW DID YOU CALCULATE THE FLOTATION COST RECOVERY

## ADJUSTMENT?

A. I modified the DCF calculation to provide a dividend yield that would reimburse investors for issuance costs. My flotation cost adjustment recognizes the costs of issuing equity that were incurred by the proxy group companies in their most recent two common equity issuances. Based on the issuance costs provided in Exhibit No. $\qquad$ (RBH-7), an

[^8]adjustment of 0.14 percent (i.e., 14 basis points) reasonably represents flotation costs for the Company.
Q. IS YOUR CALCULATION OF FLOTATION COSTS CONSISTENT WITH THE COMMISSION'S PRIOR DETERMINATIONS?
A. The Commission previously agreed that flotation costs are an ongoing expense and approved a 20 basis point adjustment. ${ }^{46}$ My calculation of a 14 basis point adjustment is consistent with this determination.
Q. ARE YOU PROPOSING TO ADJUST YOUR RECOMMENDED ROE BY 14 BASIS POINTS TO REFLECT THE EFFECT OF FLOTATION COSTS ON THE COMPANY'S ROE?
A. No, I am not. Rather, I have considered the effect of flotation costs, in addition to the Company's other business risks, in determining where its ROE falls within the range of results.

## VIII. CAPITAL MARKET ENVIRONMENT

Q. DO ECONOMIC CONDITIONS INFLUENCE THE REQUIRED COST OF CAPITAL AND REQUIRED RETURN ON COMMON EQUITY?
A. Yes. As discussed in Section VI, the models used to estimate the Cost of Equity are meant to reflect, and therefore are influenced by, current and expected capital market conditions.
Q. HAVE YOU REVIEWED ANY SPECIFIC INDICES TO ASSESS THE RELATIONSHIP BETWEEN CURRENT MARKET CONDITIONS AND INVESTOR RETURN REQUIREMENTS?

A Yes, I considered several measures of capital market risk, including: (1) the relationship between treasury yields and the Cost of Equity; (2) incremental credit spreads on investment grade utility debt; (3) the relationship between electric utility dividend yields and long-term Treasury yields; and (4) equity market volatility and correlations. As discussed below, each of those measures provide information that is relevant to the implementation of models used to estimate the Cost of Equity and in the interpretation of the model results.

## Relationship Between Historically Low Treasury Yields and the Cost of Equity

## Q. AS A PRELIMINARY MATTER, HAS THE COST OF EQUITY FALLEN IN

 TANDEM WITH THE RECENT DECLINE IN LONG-TERM TREASURY YIELDS?A. No, it has not. The fear of taking the risks of equity ownership, for example, has motivated many investors to move their capital into the relative safety of Treasury securities. In doing so, investors have bid down yields to the point that they currently are receiving yields on ten-year Treasury bonds that are below the rate of inflation. ${ }^{47}$ In effect, those investors are willing to accept a negative real return on Treasury bonds rather than be subject to the risk of owning equity securities.

At the same time, the Federal Reserve's policy of buying longer-dated Treasury securities and selling short-term securities also may have had the effect of lowering long-

47 See, for example, Treasurys Slide After Lackluster Sale, The Wall Street Journal, August 8, 2012.
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term Treasury yields. That is, of course, the objective of the Federal Reserve's "maturity extension program" which began in June 2011. ${ }^{48}$ As the Federal Reserve noted:

Under the maturity extension program, the Federal Reserve intends to sell or redeem a total of $\$ 667$ billion of shorter-term Treasury securities by the end of 2012 and use the proceeds to buy longer-term Treasury securities. This will extend the average maturity of the securities in the Federal Reserve's portfolio.

By reducing the supply of longer-term Treasury securities in the market, this action should put downward pressure on longer-term interest rates, including rates on financial assets that investors consider to be close substitutes for longer-term Treasury securities. The reduction in longerterm interest rates, in turn, will contribute to a broad easing in financial market conditions that will provide additional stimulus to support the economic recovery. ${ }^{49}$

Consequently, two factors are at work: (1) the continued focus on capital preservation on the part of investors has caused them to reallocate capital to the relative safety of Treasury securities, thereby bidding up the price and bidding down the yield; and (2) the Federal Reserve's continued policy of buying long-term Treasury securities in order to lower the yield. As the Federal Reserve noted in its June 2012 Open Market Committee meeting minutes, the effect of those two factors has been a continued decline in Treasury yields:

Yields on longer-dated nominal and inflation-protected Treasury securities moved down substantially, on net, over the intermeeting period. The yield on nominal 10 -year Treasury securities reached a historically low level immediately following the release of the May employment report. A sizable portion of the decline in longer-term Treasury rates over the period appeared to reflect greater safe-haven demands by investors, along with some increase in market participants' expectations of further Federal Reserve balance sheet actions. ${ }^{50}$

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At issue, then, is whether those two factors - the continuing tendency of investors to seek the relative safety of long-term Treasury securities and the Federal Reserve's policy of lowering long-term Treasury yields - have caused the required return on equity to fall in a fashion similar to the recent decline in interest rates. In large measure, that issue becomes a question of whether the premium required by debt and equity investors also has remained constant as Treasury yields have decreased. To the extent that the risk premium has increased, the higher premium has offset, at least to some degree, the decline in Treasury yields, indicating that the Cost of Equity has not fallen in lock step with the decline in interest rates.

One method of performing that analysis is to analyze the implied required market return of the S\&P 500 companies on a "build-up" basis. From that perspective, the required market return represents the sum of: (1) long-term Treasury yields; (2) the credit spread (i.e., the incremental return required by debt investors over Treasury yields; and (3) the Equity Risk Premium (i.e., the incremental return required by equity investors over the cost of debt). As shown on Chart 2 (below), that has been the case: both debt and equity investors have required increased risk premiums as long-term Treasury yields have fallen. In fact, this analysis demonstrates that despite Treasury yields decreasing in recent years, the overall expected market return for the S\&P 500 has actually increased.

Chart 2: Components of S\&P 500 Market Risk Premium (2010 - 2012) ${ }^{51}$


As discussed above, the proposition that the risk premium has increased even as Treasury yields have declined makes practical sense: as investors seek the safety of Treasury securities they require higher equity returns to overcome the currently perceived risk of equity markets vis-à-vis Treasury securities. Even if the decrease in Treasury yields is driven by investors' expectations of continued buying on the part of the Federal Reserve, that expectation does not affect the fundamental assessment of risks associated with equity investments in utility companies. If anything, the uncertainty surrounding the timing and degree of continued Federal intervention introduces an additional element of uncertainty, which increases investment risk and, therefore, the required return.
Q. HAVE YOU REVIEWED SPECIFIC MARKET INDICES THAT ALSO SUPPORT THE POSITION THAT COST OF EQUITY HAS NOT FALLEN IN TANDEM WITH LONG-TERM INTEREST RATES?
A. Yes. As noted above, I have considered Incremental Credit Spreads, the relationship between dividend yields and Treasury yields (that is, the "Yield Spread"), and measures of both market volatility and the correlation in returns between utility stocks and the broad market. Each of those measures, which are discussed below, supports the position that the Cost of Equity has not fallen in lock step with the decrease in Treasury yields.

## Incremental Credit Spreads

## Q. HOW HAVE CREDIT SPREADS BEEN AFFECTED BY CURRENT MARKET CONDITIONS?

A. The "credit spread" is the return required by debt investors to take on the default risk associated with securities of differing credit quality. For a given credit rating, the credit spread is measured by reference to a Treasury security of similar tenure. That is, the credit spread on A-rated utility bonds may be measured by reference to the 30 -year Treasury Bond yield; the same would be true of Baa-rated securities. ${ }^{52}$ Because lower credit ratings reflect higher levels of risk, credit spreads typically are higher for lowerrated securities. In that regard, the incremental credit spread (e.g., the difference between the credit spreads associated with A and Baa-rated securities, respectively) is an

52 The minimum maturity for the bonds in this index is 20 years, with an average of 30 years. Moody's LongTerm Corporate Bond Yield Averages are derived from pricing data on a regularly replenished population of nearly 100 seasoned corporate bonds in the U.S. market, each with current outstandings over \$100 million. The bonds have maturities as close as possible to 30 years and are dropped from the list if their remaining life falls below 20 years, if they are susceptible to redemption, or if their ratings change. All yields are yield-to-maturity calculated on a semi-annual basis. Each observation is an unweighted average, with Average Corporate yields representing the unweighted average of the corresponding Average Industrial and Average Public Utility observations. See Bloomberg.com.
indication of incremental return required by investors to take on additional levels of risk. As Chart 3 demonstrates, since the beginning of 2010, the Moody's Utility Bond Index $\mathrm{Baa} / \mathrm{A}$ credit spread has steadily increased, indicating that debt investors have increased their marginal return requirements.

## Chart 3: Moody's Utility Bond Index Baa-A Credit Spread ${ }^{53}$



It is also interesting to note that the incremental credit spread has increased as long-term Treasury yields have decreased. In fact, as Chart 4 demonstrates, even since January 2010, changes in the incremental credit spread are negatively correlated with changes in the 30-year Treasury yield.

Chart 4: Moody's Utility Bond Index Baa-A Credit Spread


## Q. WHAT ARE THE IMPLICATIONS OF THOSE FINDINGS IN ASSESSING THE COMPANY'S COST OF EQUITY?

A. The implications are twofold. First, the recent decline in long-term Treasury yields has been accompanied by an increase in the premium required by investors to accept incremental levels of credit risk. That is, the incremental credit spread has increased as the level of Treasury yields have decreased. While that inverse relationship applies to the cost of debt, prior academic research has demonstrated that the Equity Risk Premium likewise is inversely related to interest rates. ${ }^{54}$ Consequently, neither the Cost of Equity nor the cost of debt has decreased in lock step with Treasury yields.

Those results also demonstrate the importance of maintaining a financial and credit profile that supports the Company's current BBB+ rating. Because incremental credit

54 Robert S. Harris and Felicia C. Marston, Estimating Shareholder Risk Premia Using Analysts’ Growth Forecasts, Financial Management, Summer 1992; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, The Risk Premium Approach to Measuring a Utility's Cost of Equity, Financial Management, Spring 1985, at 33-45; and Farris M. Maddox, Donna T. Pippert, and Rodney N. Sullivan, An Empirical Study of Ex Ante Risk Premiums for the Electric Utility Industry, Financial Management, Autumn 1995, at 89-95.
spreads have steadily increased, the benefit of maintaining a $\mathrm{BBB}+$ rating is greater in the current market than it has been, even over the past two years. That conclusion is consistent with recent findings by Fitch, which noted that:

While it appears that the credit spread differential between the rating categories has a relatively small impact during times of economic stability, during recent periods of economic stress, a higher credit rating produces a meaningful difference in credit spreads ... and provides more assured access to capital. ${ }^{55}$

Since regulatory actions affect credit ratings in several, often significant ways, the Commission's decision in this proceeding will directly affect the Company's credit profile and influence its ability to maintain a credit profile that enables continued access to capital at reasonable costs. Given the Company's substantial capital investment plans and external funding needs, the benefits of reliable and cost-effective capital access are significant.

## Yield Spreads

## Q. PLEASE BRIEFLY DEFINE THE TERM "YIELD SPREAD" AND EXPLAIN ITS

 MEANING IN ASSESSING CAPITAL MARKET CONDITIONS.A. The "yield spread" is the difference between the yield on long-term Treasury securities on the one hand, and common stock dividend yields on the other. Investors often consider yield spreads in their assessment of security valuation and capital market conditions. As explained below, to the extent that yield spreads materially deviate from long-term relationships, it may be an indication of continuing dislocations within the capital market.
Q. HAVE YOU REVIEWED THE CURRENT AND HISTORICAL YIELD SPREAD FOR ELECTRIC UTILITY COMPANIES?
A. Yes, I have. As shown in Chart 5, for much of the period from January 2000 through August 17, 2012, the 30-year Treasury yield has exceeded the dividend yield on electric utility stocks (as measured by the SNL Electric Company Index). In fact, over that time, the yield spread averaged approximately 64 basis points. ${ }^{56}$ That period, however, includes the 2002-2003 credit contraction, during which period the Treasury yields and utility dividend yields were essentially equal, and the post-Lehman Brothers bankruptcy period, during which the yields inverted, such that the electric utility index dividend yield exceeded the 30 -year Treasury yield. Excluding those two periods, the average yield spread was 129 basis points (that is, on average, the 30 -year Treasury yield exceeded the dividend yield by 129 basis points).

Chart 5: Treasury/Dividend Yield Spread ${ }^{57}$


56 That is to say that on average, the 30 -year Treasury yield exceeded the electric utility dividend yield by 64
basis points.
Source: SNL Financial.

As Chart 5 also demonstrates, the yield spread inverted shortly after the September 15, 2008 Lehman Brothers bankruptcy, and has essentially remained inverted since that time. In fact, since August 2011, the yields have remained inverted, such that the SNL Electric Company Index average dividend yield exceeded the 30 -year Treasury yield by 96 basis points. The continuing instability in the yield spread also has been observed by The Wall Street Journal, which noted that historically, "dividend yields have tended to track the yield on 10-year Treasurys closely."58 The article went on to note that:

Regulated utilities' dividend yields decoupled from Treasury yields in December 2007, as the U.S. recession began. After the initial flight to quality cut yields on Treasurys, particularly after Lehman Brothers collapsed in September 2008, the Federal Reserve's policy of buying up government debt has helped keep them low.

## Q. HOW DOES SUCH DATA ENTER INTO YOUR ASSESSMENT OF THE COMPANY'S COST OF EQUITY?

A. As noted above, investors often look to the relationships among financial metrics to assess current and expected levels of market stability. As also noted above, to the extent that current relationships among such indices materially deviate from long-term norms, it may be an indication of continuing or expected market instability. Moreover, such data provide market-based methods by which to assess the implications of the currently low Treasury yields for the Company's Cost of Equity. If, for example, the currently low level Treasury yields indicated a correspondingly low Cost of Equity, the average dividend yield would be approximately 2.01 percent, or lower. ${ }^{59}$ As shown on Exhibitrate).

No.__(RBH-1), however, the current (proxy group) average dividend yield is approximately 3.96 percent. Again, low Treasury yields are not necessarily indicative of correspondingly low equity return requirements.

## Equity Market Volatility and Return Correlations

## Q. PLEASE BRIEFLY DEFINE THE TERM "VOLATILITY" AND EXPLAIN ITS RELEVANCE TO DETERMINING THE COST OF EQUITY. <br> A. In finance, "volatility" is a statistical measure of the dispersion of returns for a given security or market index. Securities for which returns are more broadly dispersed (that is, they have a higher degree of deviation from the mean) are thought to be less certain and, therefore, more risky than securities whose returns historically have been less dispersed. The most common measure of such dispersion is the standard deviation, ${ }^{60}$ which (as discussed in Section VI) is an important variable in certain Cost of Equity estimation models.

Q. PLEASE DEFINE THE TERM "CORRELATION" AND EXPLAIN ITS RELEVANCE TO DETERMINING THE COST OF EQUITY.
A. "Correlation" is a measure of the extent to which two variables tend to move in relation to each other. By definition, correlation (as measured by correlation coefficients) ranges from -1.00 to 1.00 ; a negative correlation indicates that the returns on two securities move in opposite directions, while a positive correlation suggests that they move together. The closer the correlation coefficient is to -1.00 or 1.00 , the stronger that relationship.
${ }^{60}$ See, for example, Ross, Westerfield, Jaffe and Jordon, Corporate Finance; Core Principals \& Applications, $2^{\text {nd }}$ Ed., McGraw-Hill Irwin, 2009, at 313.

Because securities with low or negative correlations are less likely to move in tandem, investors consider such investments to offer certain diversification benefits; highly correlated securities do not. As discussed in Section VI, under portfolio-based Cost of Equity techniques such as the Capital Asset Pricing Model, stocks with high correlations to the broad market tend to represent greater risk (and therefore require higher returns) than stocks with lower market correlations. ${ }^{61}$

## Q. HAVE YOU REVIEWED THE RECENT AND HISTORICAL DEGREES OF VOLATILITY AND CORRELATION FOR ELECTRIC UTILITY STOCKS?

A. Yes, I have. The purpose of my analysis was to examine the current degrees of volatility and correlation for the broad market (as measured by the S\&P 500 Index) and electric utilities (measured by the SNL Electric Company Index) relative to their historical averages. My analysis also reviewed the relationship between volatility and correlations for those indices. As discussed in more detail below, although market volatility recently has moderated, electric utility stocks have been increasingly correlated with the broad market. Because both volatility and correlations are factors underlying the Cost of Equity, it is not necessarily true that moderating market volatility implies significantly lower common equity return requirements. It also is interesting to note that correlations tend to increase during periods of high market volatility. Consequently, during such periods, investors return requirements would be higher still.

## Q. PLEASE SUMMARIZE YOUR REVIEW OF MARKET VOLATILITY.

A. For the purpose of my review, I calculated the standard deviation of daily returns for the S\&P 500 and the SNL Electric Company Indices, respectively, for the period January 3,
${ }^{61}$ As discussed in Section VI, the Beta coefficient factor of the Capital Asset Pricing Model reflects both the degree of correlation between the subject company and the overall market, and measures of volatility.

2000 through August 17, 2012 (see Chart 6, below). As Chart 6 demonstrates, the volatility of returns (for both indices) increased significantly during the 2002 - 2003 credit contraction, the 2008 - 2009 recent financial crisis, and, most recently, during the latter part of 2011. Market estimates of future volatility still remain somewhat above the long-term average. ${ }^{62}$

Chart 6: Daily Return Volatility ${ }^{63}$ (January 1, 2000 - August 17, 2012)


## Q. TURNING NOW TO RETURN CORRELATIONS, HOW HAVE THE SNL ELECTRIC COMPANY INDEX RETURNS MOVED RELATIVE TO THE S\&P $500 ?$

A. Since 2000, the correlation between SNL Electric Company returns and the S\&P 500 returns have been trending upward, as shown by the linear trend in Chart 7, below. Despite correlations moderating in the near term, the prevailing long-term trend remains toward increased correlation between the two indices.


## Q. HAS THE INCREASED CORRELATION OF RETURNS BEEN NOTED BY THE

## FINANCIAL COMMUNITY?

A. Yes, it has. A January 4, 2012 article in The Wall Street Journal, for example, noted that "[a] fact of life for investors in recent years, especially in the stock market, has been the dramatic rise in correlations. One surprise of 2011 was the degree to which correlations within and across financial markets returned with a vengeance. ${ }^{\circ 55}$ Citing a study by BCA Research, the article concluded by noting that:
...in order for correlations to decline dramatically to pre-Lehman levels, investors will likely need some sense that the headwinds facing the U.S. economy have largely dissipated, and that the expansion has successfully transitioned to a sustainable, self-reinforcing phase (i.e. the recovery will not fall apart in the absence of continual shots of monetary or fiscal stimulus). It may be years before such a realization occurs, suggesting that the "high vol/high correlation" world is likely to persist, even if we have seen the worst for this cycle. ${ }^{66}$

[^10]My findings, that electric utility stocks remain somewhat more volatile than their historical average but are far more correlated with the broad market than they historically have been, are consistent with the observations noted by The Wall Street Journal.

## Q. WHAT CONCLUSIONS DO YOU DRAW FROM THOSE ANALYSES?

A. First, it is important to recognize the relationships among financial measures relied upon by investors and to reflect those relationships in Cost of Equity estimates. Simply observing, for example, that long-term Treasury rates are at historically low levels is not a sufficient level of analysis to conclude that the Cost of Equity is at a commensurately low level. As noted above, for example, if investors believed that the current level of long-term Treasury yields is indicative of the Cost of Equity, electric utility dividend yields would be almost 200 basis points below their current levels. Similarly, both sector and market-wide volatility should not be viewed in isolation; rather, they should be considered together with the correlation of returns. Recognizing that volatility, and the interaction among key indices, provides a more complete perspective and enables a more accurate determination of the Cost of Equity.

## IX. CAPITAL STRUCTURE

## Q. WHAT IS THE COMPANY'S PROPOSED CAPITAL STRUCTURE?

A. In its application filed in this docket, the Company has proposed a capital structure comprised of 52.18 percent common equity and 47.82 percent long-term debt. ${ }^{67}$
${ }^{67}$ Public Service Commission of South Carolina, Docket No. 2012-218-E South Carolina Electric \& Gas Company's Application dated June 29, 2012, Exhibit C-7.
Q. IS THERE A GENERALLY ACCEPTED APPROACH TO DEVELOPING THE APPROPRIATE CAPITAL STRUCTURE FOR A REGULATED ELECTRIC UTILITY?
A. Yes, there are a number of approaches to developing the appropriate capital structure. The reasonableness of the approach depends on the nature and circumstances of the subject company. In cases where the subject company does not issue its own securities, it may be reasonable to look to the parent's capital structure or to develop a "hypothetical" capital structure based on the proxy group companies or other industry data. Regardless of the approach taken, however, it is important to consider the resulting capital structure in light of industry norms and investor requirements. That is, the capital structure should enable the subject company to maintain its financial integrity, thereby enabling access to capital at competitive rates under a variety of economic and financial market conditions.

## Q. HOW DOES THE CAPITAL STRUCTURE AFFECT THE COST OF EQUITY?

A. The capital structure relates to a company's financial risk, which represents the risk that a company may not have adequate cash flows to meet its financial obligations, and is a function of the percentage of debt (or financial leverage) in its capital structure. In that regard, as the percentage of debt in the capital structure increases, so do the fixed obligations for the repayment of that debt. Consequently, as the degree of financial leverage increases, the risk of financial distress (i.e., financial risk) also increases. Since the capital structure can affect the subject company's overall level of risk, ${ }^{68}$ it is an important consideration in establishing a just and reasonable rate of return.
Q. IS THERE SUPPORT FOR THE PROPOSITION THAT THE CAPITAL STRUCTURE IS A KEY CONSIDERATION IN ESTABLISHING AN
APPROPRIATE RETURN ON EQUITY?
A. Yes. The United States Supreme Court and various utility commissions have long recognized the role of capital structure in the development of a just and reasonable rate of return for a regulated utility. In particular, a utility's leverage, or debt ratio, has been explicitly recognized as an important element in determining a just and reasonable rate of return:

Although the determination of whether bonds or stocks should be issued is for management, the matter of debt ratio is not exclusively within its province. Debt ratio substantially affects the manner and cost of obtaining new capital. It is therefore an important factor in the rate of return and must necessarily be considered by and come within the authority of the body charged by law with the duty of fixing a just and reasonable rate of return. ${ }^{69}$

Perhaps the ultimate authority for balancing the issues of cost and financial integrity is the Supreme Court's decision in Hope that was cited and applied by the U.S. Court of Appeals for the D.C. Circuit in 1977:

The rate-making process under the Act, i.e., the fixing of "just and reasonable rates, involves a balancing of the investor and the consumer interests." 320 U.S. at $603,64 \mathrm{~S} . \mathrm{Ct}$. at 288 . The equity investor's stake is made less secure as the Company's debt rises, but the consumer ratepayer's burden is alleviated. ${ }^{70}$

Consequently, the principles of fairness and reasonableness with respect to the allowed rate of return and capital structure are considered at both the federal and state levels.
Q. PLEASE DISCUSS YOUR ANALYSIS OF THE CAPITAL STRUCTURES OF THE PROXY GROUP COMPANIES.
A. I calculated the average capital structure for each of the proxy group companies over the last eight quarters. As shown in Exhibit No. $\qquad$ (RBH-8), the mean of the proxy group actual capital structures is 51.50 percent common equity and 48.50 percent long-term debt. The common equity ratios range from 48.09 percent to 59.90 percent. Based on that review, it is apparent that the Company's proposed capital structure is generally consistent with the capital structures of the proxy group companies.
Q. WHAT IS THE BASIS FOR USING AVERAGE CAPITAL COMPONENTS RATHER THAN A POINT-IN-TIME MEASUREMENT?
A. Measuring the capital components at a particular point in time can skew the capital structure by the specific circumstances of a particular period. Therefore, it is more appropriate to normalize the relative relationship between the capital components over a period of time.
Q. WHAT IS YOUR CONCLUSION REGARDING AN APPROPRIATE CAPITAL STRUCTURE FOR SCE\&G?
A. Considering the average actual equity ratio of 51.50 percent for the proxy group companies, I believe that SCE\&G's proposed common equity ratio of 52.18 percent is appropriate as it is consistent with the proxy group companies.

## X. CONCLUSIONS AND RECOMMENDATION

## Q. WHAT IS YOUR CONCLUSION REGARDING THE COMPANY'S COST OF EQUITY?

A. I believe that a rate of return on common equity in the range of 10.75 percent to 11.50 percent represents the range of equity investors' required rate of return for investment in integrated electric utilities similar to SCE\&G in today's capital markets. Within that range, an ROE of 11.25 percent is reasonable and appropriate. Consequently, the Company's proposed 10.95 percent ROE is, in my view, quite conservative. My recommendation also takes into consideration the Company's risk profile relative to the proxy group analytical results with respect to: (1) the incremental risks associated with the Company's need to fund substantial capital expenditures including its investment in new nuclear generation facilities; (2) the risks associated with the Company's comparatively small size; and (3) flotation costs associated with equity issuances. As such, a rate of return on common equity in the range of 10.75 percent to 11.50 percent reasonably represents the return required to invest in a company with a risk profile comparable to SCE\&G. Exhibit No.__(RBH-1) through Exhibit No.__(RBH-8) summarize my analytical results. Finally, I conclude that the Company's proposed capital structure, which consists of 52.18 percent common equity and 47.82 percent longterm debt, is reasonable.

## Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

# Robert B. Hevert, CFA <br> Managing Partner <br> Sussex Economic Advisors, LLC 

Mr. Hevert is an economic and financial consultant with broad experience in regulated industries. He has an extensive background in the areas of corporate finance, corporate strategic planning, energy market assessment, mergers, and acquisitions, asset-based transactions, feasibility and due diligence analyses, and providing expert testimony in litigated proceedings. Mr. Hevert has significant management experience with both operating and professional services companies.

## REPRESENTATIVE PROJECT EXPERIENCE

## Litigation Support and Expert Testimony

Provided expert testimony and support of litigation in various regulatory proceedings on a variety of energy and economic issues including: cost of capital for ratemaking purposes; the proposed transfer of power purchase agreements; procurement of residual service electric supply; the legal separation of generation assets; merger-related synergies; assessment of economic damages; and specific financing transactions. Services provided include collaborating with counsel, business and technical staff to develop litigation strategies, preparing and reviewing discovery and briefing materials, preparing presentation materials and participating in technical sessions with regulators and intervenors.

## Financial and Economic Advisory Services

Retained by numerous leading energy companies and financial institutions throughout North America to provide services relating to the strategic evaluation, acquisition, sale or development of a variety of regulated and non-regulated enterprises. Specific services have included: developing strategic and financial analyses and managing multi-faceted due diligence reviews of proposed corporate M\&A counter-parties; developing, screening and recommending potential M\&A transactions and facilitating discussions between senior utility executives regarding transaction strategy and structure; performing valuation analyses and financial due diligence reviews of electric generation projects, retail marketing companies, and wholesale trading entities in support of significant M\&A transactions.

Specific divestiture-related services have included advising both buy and sell-side clients in transactions for physical and contractual electric generation resources. Sell-side services have included: development and implementation of key aspects of asset divestiture programs such as marketing, offering memorandum development, development of transaction terms and conditions, bid process management, bid evaluation, negations, and regulatory approval process. Buy-side services have included comprehensive asset screening, selection, valuation and due diligence reviews. Both buy and sell-side services have included the use of sophisticated asset valuation techniques, and the development and delivery of fairness opinions.

Specific corporate finance experience while a Vice President with Bay State Gas included: negotiation, placement and closing of both private and public long-term debt, preferred and common equity; structured and project financing; corporate cash management; financial analysis, planning and forecasting; and various aspects of investor relations.

## Regulatory Analysis and Ratemaking

On behalf of electric, natural gas and combination utilities throughout North America, provided services relating to energy industry restructuring including merchant function exit, residual energy supply obligations, and stranded cost assessment and recovery. Specific services provided include: performing strategic review and development of merchant function exit strategies including analysis of provider of last resort obligations in both electric and gas markets; and developing value optimizing strategies for physical generation assets.

## Energy Market Assessment

Retained by numerous leading energy companies and financial institutions nationwide to manage or provide assessments of regional energy markets throughout the U.S. and Canada. Such assessments have included development of electric and natural gas price forecasts, analysis of generation project entry and exit scenarios, assessment of natural gas and electric transmission infrastructure, market structure and regulatory situation analysis, and assessment of competitive position. Market assessment engagements typically have been used as integral elements of business unit or asset-specific strategic plans or valuation analyses.

## Resource Procurement, Contracting and Analysis

Assisted various clients in evaluating alternatives for acquiring fuel and power supplies, including the development and negotiation of energy contracts and tolling agreements. Assignments also have included developing generation resource optimization strategies. Provided advice and analyses of transition service power supply contracts in the context of both physical and contractual generation resource divestiture transactions.

## Business Strategy and Operations

Retained by numerous leading North American energy companies and financial institutions nationwide to provide services relating to the development of strategic plans and planning processes for both regulated and non-regulated enterprises. Specific services provided include: developing and implementing electric generation strategies and business process redesign initiatives; developing market entry strategies for retail and wholesale businesses including assessment of asset-based marketing and trading strategies; and facilitating executive level strategic planning retreats. As Vice President, of Bay State was responsible for the company's strategic planning and business development processes, played an integral role in developing the company's non-regulated marketing affiliate, EnergyUSA, and managed the company's non-regulated investments, partnerships and strategic alliances.

## PROFESSIONAL HISTORY

## Sussex Economic Advisors, LLC (2012 - Present) <br> Managing Partner

Concentric Energy Advisors, Inc. (2002-2012)
President
Navigant Consulting, Inc. (1997-2001)
Managing Director (2000 - 2001)
Director (1998 - 2000)
Vice President, REED Consulting Group (1997-1998)

Bay State Gas Company (now Columbia Gas Company of Massachusetts) (1987 - 1997)
Vice President and Assistant Treasurer

Boston College (1986-1987)
Financial Analyst

General Telephone Company of the South (1984-1986)
Revenue Requirements Analyst

## EDUCATION

M.B.A., University of Massachusetts at Amherst, 1984
B.S., University of Delaware, 1982

## DESIGNATIONS AND PROFESSIONAL AFFILIATIONS

Chartered Financial Analyst, 1991
Association for Investment Management and Research
Boston Security Analyst Society

## PUBLICATIONS/PRESENTATIONS

Has made numerous presentations throughout the United States and Canada on several topics, including:

- Generation Asset Valuation and the Use of Real Options
- Retail and Wholesale Market Entry Strategies
- The Use Strategic Alliances in Restructured Energy Markets
- Gas Supply and Pipeline Infrastructure in the Northeast Energy Markets
- Nuclear Asset Valuation and the Divestiture Process


## AVAILABLE UPON REQUEST

Extensive client and project listings, and specific references.

| Sponsor | Date | CASE/APPLICANT | Docket No. | SUBJECT |
| :---: | :---: | :---: | :---: | :---: |
| Arizona Corporation Commission |  |  |  |  |
| Southwest Gas Corporation | 11/10 | Southwest Gas Corporation | Docket No. G-01551A-10-0458 | Return on Equity |
| Arkansas Public Service Commission |  |  |  |  |
| CenterPoint Energy Resources Corp. <br> d/b/a CenterPoint Energy Arkansas Gas | 01/07 | CenterPoint Energy Resources Corp. <br> d/b/a CenterPoint Energy <br> Arkansas Gas | Docket No. 06-161-U | Return on Equity |
| Colorado Public Utilities Commission |  |  |  |  |
| Public Service Company of Colorado | 11/11 | Public Service Company of Colorado | Docket No. 11AL-947E | Return on Equity (electric) |
| Xcel Energy, Inc. | 12/10 | Public Service Company of Colorado | Docket No. 10AL-963G | Return on Equity (electric) |
| Atmos Energy Corporation | 07/09 | Atmos Energy Colorado-Kansas Division | Docket No. 09AL-507G | Return on Equity (gas) |
| Xcel Energy, Inc. | 12/06 | Public Service Company of Colorado | Docket No. 06S-656G | Return on Equity (gas) |
| Xcel Energy, Inc. | 04/06 | Public Service Company of Colorado | Docket No. 06S-234EG | Return on Equity (electric) |
| Xcel Energy, Inc. | 08/05 | Public Service Company of Colorado | Docket No. 05S-369ST | Return on Equity (steam) |
| Xcel Energy, Inc. | 05/05 | Public Service Company of Colorado | Docket No. 05S-264G | Return on Equity (gas) |
| Connecticut Department of Public Utility Control |  |  |  |  |
| Southern Connecticut Gas Company | 09/08 | Southern Connecticut Gas Company | Docket No. 08-08-17 | Return on Equity |
| Southern Connecticut Gas Company | 12/07 | Southern Connecticut Gas Company | Docket No. 05-03- <br> 17PH02 | Return on Equity |


| Sponsor | Date | CASE/ApPlicant | Docket No. | Subject |
| :---: | :---: | :---: | :---: | :---: |
| Connecticut Natural Gas Corporation | 12/07 | Connecticut Natural Gas Corporation | Docket No. 06-0304PH02 | Return on Equity |
| Delaware Public Service Commission |  |  |  |  |
| Delmarva Power \& Light Company | 12/11 | Delmarva Power \& Light Company | Case No. 11-528 | Return on Equity |
| District of Columbia Public Service Commission |  |  |  |  |
| Potomac Electric Power Company | 07/11 | Potomac Electric Power Company | Formal Case No. FC1087 | Return on Equity |
| Federal Energy Regulatory Commission |  |  |  |  |
| Public Service Company of New Mexico | 10/10 | Public Service Company of New Mexico | Docket No. ER11-1915000 | Return on Equity |
| Portland Natural Gas Transmission System | 05/10 | Portland Natural Gas Transmission System | Docket No. RP10-729000 | Return on Equity |
| Florida Gas Transmission Company, LLC | 10/09 | Florida Gas Transmission Company, LLC | Docket No. RP10-21-000 | Return on Equity |
| Maritimes and Northeast Pipeline, LLC | 07/09 | Maritimes and Northeast Pipeline, LLC | Docket No. RP09-809000 | Return on Equity |
| Spectra Energy | 02/08 | Saltville Gas Storage | Docket No. RP08-257000 | Return on Equity |
| Panhandle Energy Pipelines | 08/07 | Panhandle Energy Pipelines | Docket No. PL07-2-000 | Response to draft policy statement regarding inclusion of MLPs in proxy groups for determination of gas pipeline ROEs |
| Southwest Gas Storage Company | 08/07 | Southwest Gas Storage Company | Docket No. RP07-541000 | Return on Equity |
| Southwest Gas Storage Company | 06/07 | Southwest Gas Storage Company | Docket No. RP07-34-000 | Return on Equity |


| Sponsor | Date | Case/ApPlicant | Docket No. | SubJECT |
| :---: | :---: | :---: | :---: | :---: |
| Sea Robin Pipeline LLC | 06/07 | Sea Robin Pipeline LLC | Docket No. RP07-513000 | Return on Equity |
| Transwestern Pipeline Company | 09/06 | Transwestern Pipeline Company | Docket No. RP06-614000 | Return on Equity |
| GPU International and Aquila | 11/00 | GPU International | Docket No. EC01-24-000 | Market Power Study |
| Georgia Public Service Commission |  |  |  |  |
| Atlanta Gas Light Company | 05/10 | Atlanta Gas Light Company | Docket No. 31647-U | Return on Equity |
| Hawaiian |  |  |  |  |
| Hawaiian Electric Light Company | 08/12 | Hawaiian Electric Light Company | Docket No. 2012-0099 | Return on Equity |
| Illinois Commerce Commission |  |  |  |  |
| Ameren Illinois Company d/b/a Ameren Illinois | 02/11 | Ameren Illinois Company $\mathrm{d} / \mathrm{b} / \mathrm{a}$ Ameren Illinois | Docket No. 11-0279 | Return on Equity (electric) |
| Ameren Illinois Company d/b/a Ameren Illinois | 02/11 | Ameren Illinois Company d/b/a Ameren Illinois | Docket No. 11-0282 | Return on Equity (gas) |
| Maine Public Utilities Commission |  |  |  |  |
| Central Maine Power Company | 06/11 | Central Maine Power Company | Docket No. 2010-327 | Response to Bench Analysis provided by Commission Staff relating to the Company's credit and collections processes |
| Maryland Public Service Commission |  |  |  |  |
| Delmarva Power \& Light Company | 12/11 | Delmarva Power \& Light Company | Case No. 9285 | Return on Equity |
| Potomac Electric Power Company | 12/11 | Potomac Electric Power Company | Case No. 9286 | Return on Equity |
| Delmarva Power \& Light Company | 12/10 | Delmarva Power \& Light Company | Case No. 9249 | Return on Equity |


| Sponsor | Date | CASE/APPLICANT | Docket No. | SubJECT |
| :---: | :---: | :---: | :---: | :---: |
| Massachusetts Department of Public Utilities |  |  |  |  |
| National Grid | 08/09 | Massachusetts Electric Company d/b/a National Grid | DPU 09-39 | Revenue Decoupling and Return on Equity |
| National Grid | 08/09 | Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid | DPU 09-38 | Return on Equity Solar Generation |
| Bay State Gas Company | 04/09 | Bay State Gas Company | DTE 09-30 | Return on Equity |
| NSTAR Electric | 09/04 | NSTAR Electric | DTE 04-85 | Divestiture of Power Purchase Agreement |
| NSTAR Electric | 08/04 | NSTAR Electric | DTE 04-78 | Divestiture of Power Purchase Agreement |
| NSTAR Electric | 07/04 | NSTAR Electric | DTE 04-68 | Divestiture of Power Purchase Agreement |
| NSTAR Electric | 07/04 | NSTAR Electric | DTE 04-61 | Divestiture of Power Purchase Agreement |
| NSTAR Electric | 06/04 | NSTAR Electric | DTE 04-60 | Divestiture of Power Purchase Agreement |
| Unitil Corporation | 01/04 | Fitchburg Gas and Electric | DTE 03-52 | Integrated Resource Plan; Gas Demand Forecast |
| Minnesota Public Utilities Commission |  |  |  |  |
| Otter Tail Power Corporation | 04/10 | Otter Tail Power Company | Docket No. E-017/GR-10-239 | Return on Equity |
| Minnesota Power a division of ALLETE, Inc. | 11/09 | Minnesota Power | Docket No. E-015/GR- $09-1151$ | Return on Equity |
| CenterPoint Energy Resources <br> Corp. d/b/a <br> CenterPoint Energy Minnesota Gas | 11/08 | CenterPoint Energy Minnesota Gas | $\begin{aligned} & \text { Docket No. G-008/GR- } \\ & 08-1075 \end{aligned}$ | Return on Equity |


| Sponsor | Date | Case/ApPlicant | Docket No. | Subject |
| :---: | :---: | :---: | :---: | :---: |
| Otter Tail Power Corporation | 10/07 | Otter Tail Power Company | $\begin{aligned} & \hline \text { Docket No. E-017/GR- } \\ & 07-1178 \end{aligned}$ | Return on Equity |
| Xcel Energy, Inc. | 11/05 | NSP-Minnesota | Docket No. E-002/GR-05-1428 | Return on Equity (electric) |
| Xcel Energy, Inc. | 09/04 | NSP Minnesota | Docket No. G-002/GR-04-1511 | Cost of Capital (gas) |
| Mississippi Public Service Commission |  |  |  |  |
| CenterPoint Energy Resources, Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Mississippi Gas | 07/09 | CenterPoint Energy Mississippi Gas | Docket No. 09-UN-334 | Return on Equity |
| Missouri Public Service Commission |  |  |  |  |
| Union Electric Company d/b/a Ameren Missouri | 02/12 | Union Electric Company d/b/a Ameren Missouri | Case No. ER-2012-0166 | Return on Equity (electric) |
| Union Electric Company d/b/a AmerenUE | 09/10 | Union Electric Company d/b/a AmerenUE | Case No. ER-2011-0028 | Return on Equity (electric) |
| Union Electric Company d/b/a AmerenUE | 06/10 | Union Electric Company d/b/a AmerenUE | Case No. GR-2010-0363 | Return on Equity (gas) |
| Nevada Public Utilities Commission |  |  |  |  |
| Southwest Gas Corporation | 04/12 | Southwest Gas Corporation | Docket No. 12-04005 | Return on Equity (gas) |
| Nevada Power Company | 06/11 | Nevada Power Company | Docket No. 11-06006 | Return on Equity (electric) |
| New Hampshire Public Utilities Commission |  |  |  |  |
| EnergyNorth Natural Gas d/b/a National Grid NH | 02/10 | EnergyNorth Natural Gas d/b/a National Grid NH | Docket No. DG 10-017 | Return on Equity |


| Sponsor | Date | Case/Applicant | Docket No. | Subject |
| :---: | :---: | :---: | :---: | :---: |
| Unitil Energy Systems, Inc. ("Unitil"), EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. - New Hampshire Division | 08/08 | Unitil Energy Systems, Inc. ("Unitil"), EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. - New Hampshire Division | Docket No. DG 07-072 | Carrying Charge Rate on Cash Working Capital |
| New Jersey Board of Public Utilities |  |  |  |  |
| Atlantic City Electric Company | 08/11 | Atlantic City Electric Company | Docket No. ER11080469 | Return on Equity |
| Pepco Holdings, Inc. | 09/06 | Atlantic City Electric Company | Docket No. EMO6090638 | Divestiture and Valuation of Electric Generating Assets |
| Pepco Holdings, Inc. | 12/05 | Atlantic City Electric Company | Docket No. EM05121058 | Market Value of Electric Generation Assets; Auction |
| Conectiv | 06/03 | Atlantic City Electric Company | Docket No. EO03020091 | Market Value of Electric Generation Assets; Auction Process |
| New Mexico Public Regulation Commission |  |  |  |  |
| Southwestern Public Service Company | 02/11 | Southwestern Public Service Company | Case No. 10-00395-UT | Return on Equity (electric) |
| Public Service Company of New Mexico | 06/10 | Public Service Company of New Mexico | Case No. 10-00086-UT | Return on Equity (electric) |
| Public Service Company of New Mexico | 09/08 | Public Service Company of New Mexico | Case No. 08-00273-UT | Return on Equity (electric) |
| Xcel Energy, Inc. | 07/07 | Southwestern Public Service Company | Case No. 07-00319-UT | Return on Equity (electric) |


| Sponsor | Date | CASE/APPLICANT | DOCKET No. | SubJECT |
| :---: | :---: | :---: | :---: | :---: |
| New York State Public Service Commission |  |  |  |  |
| Niagara Mohawk Corporation d/b/a National Grid for Electric Service | 04/12 | Niagara Mohawk Corporation d/b/a National Grid for Electric Service | Case No. 12-E-0201 | Return on Equity |
| Niagara Mohawk Corporation d/b/a National Grid for Gas Service | 04/12 | Niagara Mohawk Corporation d/b/a National Grid for Gas Service | Case No. 12-G-0202 | Return on Equity |
| Orange and Rockland Utilities, Inc. | 07/11 | Orange and Rockland Utilities, Inc. | Case No. 11-E-0408 | Return on Equity (electric) |
| Orange and Rockland Utilities, Inc. | 07/10 | Orange and Rockland Utilities, Inc. | Case No. 10-E-0362 | Return on Equity (electric) |
| Consolidated Edison Company of New York, Inc. | 11/09 | Consolidated Edison Company of New York, Inc. | Case No. 09-G-0795 | Return on Equity (gas) |
| Consolidated Edison Company of New York, Inc. | 11/09 | Consolidated Edison Company of New York, Inc. | Case No. 09-S-0794 | Return on Equity (steam) |
| Niagara Mohawk Power Corporation | 07/01 | Niagara Mohawk Power Corporation | Case No. 01-E-1046 | Power Purchase and Sale Agreement; Standard Offer Service Agreement |
| North Carolina Utilities Commission |  |  |  |  |
| Dominion North Carolina Power | 03/12 | Dominion Resources | Docket No. E-22, Sub 479 | Return on Equity (electric) |
| Duke Energy Carolinas, LLC | 07/11 | Duke Energy Carolinas, LLC | Docket No. E-7, Sub 989 | Return on Equity (electric) |
| North Dakota Public Service Commission |  |  |  |  |
| Otter Tail Power Company | 11/08 | Otter Tail Power Company | Docket No. 08-862 | Return on Equity (electric) |


| Sponsor | Date | CASE/ApPLICANT | Docket No. | SubJECT |
| :---: | :---: | :---: | :---: | :---: |
| Oklahoma Corporation Commission |  |  |  |  |
| Oklahoma Gas \& Electric Company | 07/11 | Oklahoma Gas \& Electric Company | Cause No. PUD201100087 | Return on Equity |
| CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas | 03/09 | CenterPoint Energy Oklahoma Gas | Cause No. PUD200900055 | Return on Equity |
| Rhode Island Public Utilities Commission |  |  |  |  |
| The Narragansett Electric Company d/b/a National Grid | 04/12 | The Narragansett Electric Company d/b/a National Grid | Docket No. 4323 | Return on Equity (electric \& gas) |
| National Grid RI - Gas | 08/08 | National Grid RI - Gas | Docket No. 3943 | Revenue Decoupling and Return on Equity |
| South Carolina Public Service Commission |  |  |  |  |
| Duke Energy Carolinas, LLC | 08/11 | Duke Energy Carolinas, LLC | Docket No. 2011-271-E | Return on Equity (electric) |
| South Carolina Electric \& Gas | 03/10 | South Carolina Electric \& Gas | Docket No. 2009-489-E | Return on Equity |
| South Dakota Public Utilities Commission |  |  |  |  |
| Otter Tail Power Company | 08/10 | Otter Tail Power Company | Docket No. EL10-011 | Return on Equity (electric) |
| Northern States Power Company | 06/09 | South Dakota Division of Northern States Power | Docket No. EL09-009 | Return on Equity (electric) |
| Otter Tail Power Company | 10/08 | Otter Tail Power Company | Docket No. EL08-030 | Return on Equity (electric) |
| Texas Public Utility Commission |  |  |  |  |
| Wind Energy Texas Transmission, LLC | 08/12 | Wind Energy Texas Transmission, LLC | Docket No. 40606 | Return on Equity |


| Sponsor | DATE | CASE/APPLICANT | DocKET No. | SUBJECT |
| :--- | :---: | :--- | :--- | :--- |
| Southwestern Electric Power <br> Company | $07 / 12$ | Southwestern Electric Power <br> Company | Docket No. 40443 | Return on Equity |
| Oncor Electric Delivery Company, <br> LLC | $01 / 11$ | Oncor Electric Delivery Company, <br> LLC | Docket No. 38929 | Return on Equity |
| Texas-New Mexico Power <br> Company | $08 / 10$ | Texas-New Mexico Power <br> Company | Docket No. 38480 | Return on Equity <br> (electric) |
| CenterPoint Energy Houston <br> Electric LLC | $07 / 10$ | CenterPoint Energy Houston <br> Electric LLC | Docket No. 38339 | Return on Equity |
| Xcel Energy, Inc. | $05 / 10$ | Southwestern Public Service <br> Company | Docket No. 38147 | Return on Equity <br> (electric) |
| Texas-New Mexico Power <br> Company | $08 / 08$ | Texas-New Mexico Power <br> Company | Docket No. 36025 | Return on Equity <br> (electric) |
| Xcel Energy, Inc. | $05 / 06$ | Southwestern Public Service <br> Company | Docket No. 32766 | Return on Equity <br> (electric) |
| Texas Railroad Commission | $06 / 12$ | Atmos Energy Corporation - West <br> Texas Division | GUD 10175 | Return on Equity |
| Atmos Energy Corporation - West <br> Texas Division | $06 / 12$ | Atmos Energy Corporation - Mid- <br> Texas Division | GUD 10171 | Return on Equity |
| Atmos Energy Corporation - Mid- <br> Texas Division | $12 / 10$ | CenterPoint Energy Resources <br> Corp. <br> d/b/a CenterPoint Energy Entex <br> and <br> CenterPoint Energy Texas Gas | GUD 10038 | Return on Equity |
| CenterPoint Energy Resources <br> Corp. <br> d/b/a CenterPoint Energy Entex and <br> CenterPoint Energy Texas Gas | Atmos Pipeline - Texas | GUD 10000 | Return on Equity |  |
| Atmos Pipeline - Texas | $09 / 10$ | Res | CenterPoint Energy Resources <br> Corp. d/b/a CenterPoint Energy <br> Entex and CenterPoint Energy <br> Texas Gas | GUD 9902 |


| Sponsor | Date | CASE/APPLICANT | Docket No. | SubJECT |
| :---: | :---: | :---: | :---: | :---: |
| CenterPoint Energy Resources Corp. <br> d/b/a CenterPoint Energy Texas Gas | 03/08 | CenterPoint Energy Resources Corp. <br> d/b/a CenterPoint Energy Texas Gas | GUD 9791 | Return on Equity |
| Utah Public Service Commission |  |  |  |  |
| Questar Gas Company | 12/07 | Questar Gas Company | Docket No. 07-057-13 | Return on Equity |
| Vermont Public Service Board |  |  |  |  |
| Central Vermont Public Service Corporation; Green Mountain Power | 02/12 | Central Vermont Public Service Corporation; Green Mountain Power | Docket No. 7770 | Merger Policy |
| Central Vermont Public Service Corporation | 12/10 | Central Vermont Public Service Corporation | Docket No. 7627 | Return on Equity (electric) |
| Green Mountain Power | 04/06 | Green Mountain Power | Docket Nos. 7175 and 7176 | Return on Equity (electric) |
| Vermont Gas Systems, Inc. | 12/05 | Vermont Gas Systems | Docket Nos. 7109 and 7160 | Return on Equity (gas) |
| Virginia State Corporation Commission |  |  |  |  |
| Columbia Gas Of Virginia, Inc. | 06/06 | Columbia Gas Of Virginia, Inc. | Case No. PUE-200500098 | Merger Synergies |
| Dominion Resources | 10/01 | Virginia Electric and Power Company | Case No. PUE000584 | Corporate Structure and Electric Generation Strategy |

Constant Growth Discounted Cash Flow Model
30 Day Average Stock Price

|  |  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Annualized Dividend | Average <br> Stock <br> Price | Dividend Yield | Expected Dividend Yield | Zacks Earnings Growth | First Call Earnings Growth | Value Line Earnings Growth | Average Earnings Growth | $\begin{aligned} & \text { Low } \\ & \text { ROE } \end{aligned}$ | Mean ROE | High <br> ROE |
| American Electric Power Company, Inc. | AEP | \$1.88 | \$42.19 | 4.46\% | 4.54\% | 3.60\% | 3.37\% | 4.50\% | 3.82\% | 7.90\% | 8.36\% | 9.06\% |
| Cleco Corp. | CNL | \$1.35 | \$43.09 | 3.13\% | 3.21\% | N/A | 3.00\% | 6.50\% | 4.75\% | 6.18\% | 7.96\% | 9.73\% |
| Empire District Electric | EDE | \$1.00 | \$21.46 | 4.66\% | 4.85\% | N/A | 10.20\% | 6.00\% | 8.10\% | 10.80\% | 12.95\% | 15.10\% |
| Great Plains Energy Inc. | GXP | \$0.85 | \$22.07 | 3.85\% | 3.98\% | 7.75\% | 6.50\% | 5.50\% | 6.58\% | 9.46\% | 10.56\% | 11.75\% |
| IDACORP, Inc. | IDA | \$1.32 | \$42.56 | 3.10\% | 3.16\% | 5.00\% | 4.00\% | 2.00\% | 3.67\% | 5.13\% | 6.82\% | 8.18\% |
| Otter Tail Corporation | OTTR | \$1.19 | \$23.38 | 5.09\% | 5.38\% | 5.00\% | 5.00\% | 24.00\% | 11.33\% | 10.22\% | 16.71\% | 29.70\% |
| Pinnacle West Capital Corp. | PNW | \$2.10 | \$53.21 | 3.95\% | 4.06\% | 5.90\% | 6.52\% | 5.00\% | 5.81\% | 9.05\% | 9.87\% | 10.60\% |
| PNM Resources, Inc. | PNM | \$0.58 | \$20.43 | 2.84\% | 3.00\% | 9.30\% | 9.30\% | 16.00\% | 11.53\% | 12.27\% | 14.54\% | 19.07\% |
| Portland General Electric Company | POR | \$1.08 | \$27.26 | 3.96\% | 4.05\% | 4.13\% | 3.63\% | 5.50\% | 4.42\% | 7.66\% | 8.47\% | 9.57\% |
| Southern Company | SO | \$1.96 | \$47.30 | 4.14\% | 4.25\% | 5.06\% | 5.38\% | 5.00\% | 5.15\% | 9.25\% | 9.40\% | 9.64\% |
| Westar Energy, Inc. | WR | \$1.32 | \$30.37 | 4.35\% | 4.47\% | 6.09\% | 4.80\% | 6.50\% | 5.80\% | 9.25\% | 10.27\% | 10.99\% |
| PROXY GROUP MEAN |  |  |  | 3.96\% | 4.09\% | 5.76\% | 5.61\% | 7.86\% | 6.45\% | 8.83\% | 10.54\% | 13.03\% |
| PROXY GROUP MEDIAN |  |  |  | 3.96\% | 4.06\% | 5.06\% | 5.00\% | 5.50\% | 5.80\% | 9.25\% | 9.87\% | 10.60\% |

## Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 30-trading day average as of August 17, 2012
[3] Equals [1]/ [2]
[4] Equals [3] $\times(1+0.5 \times[8])$
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] $\times(1+0.5 \times$ Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
90 Day Average Stock Price

|  |  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Annualized Dividend | Average Stock Price | Dividend Yield | Expected <br> Dividend Yield | Zacks Earnings Growth | First Call Earnings Growth | Value Line Earnings Growth | Average Earnings Growth | $\begin{aligned} & \text { Low } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { High } \\ & \text { ROE } \end{aligned}$ |
| American Electric Power Company, Inc. | AEP | \$1.88 | \$39.94 | 4.71\% | 4.80\% | 3.60\% | 3.37\% | 4.50\% | 3.82\% | 8.16\% | 8.62\% | 9.31\% |
| Cleco Corp. | CNL | \$1.35 | \$41.52 | 3.25\% | 3.33\% | N/A | 3.00\% | 6.50\% | 4.75\% | 6.30\% | 8.08\% | 9.86\% |
| Empire District Electric | EDE | \$1.00 | \$20.82 | 4.80\% | 5.00\% | N/A | 10.20\% | 6.00\% | 8.10\% | 10.95\% | 13.10\% | 15.25\% |
| Great Plains Energy Inc. | GXP | \$0.85 | \$20.92 | 4.06\% | 4.20\% | 7.75\% | 6.50\% | 5.50\% | 6.58\% | 9.67\% | 10.78\% | 11.97\% |
| IDACORP, Inc. | IDA | \$1.32 | \$40.88 | 3.23\% | 3.29\% | 5.00\% | 4.00\% | 2.00\% | 3.67\% | 5.26\% | 6.95\% | 8.31\% |
| Otter Tail Corporation | OTTR | \$1.19 | \$22.37 | 5.32\% | 5.62\% | 5.00\% | 5.00\% | 24.00\% | 11.33\% | 10.45\% | 16.95\% | 29.96\% |
| Pinnacle West Capital Corp. | PNW | \$2.10 | \$50.64 | 4.15\% | 4.27\% | 5.90\% | 6.52\% | 5.00\% | 5.81\% | 9.25\% | 10.07\% | 10.80\% |
| PNM Resources, Inc. | PNM | \$0.58 | \$19.25 | 3.01\% | 3.19\% | 9.30\% | 9.30\% | 16.00\% | 11.53\% | 12.45\% | 14.72\% | 19.25\% |
| Portland General Electric Company | POR | \$1.08 | \$26.13 | 4.13\% | 4.22\% | 4.13\% | 3.63\% | 5.50\% | 4.42\% | 7.84\% | 8.64\% | 9.75\% |
| Southern Company | SO | \$1.96 | \$46.50 | 4.22\% | 4.32\% | 5.06\% | 5.38\% | 5.00\% | 5.15\% | 9.32\% | 9.47\% | 9.71\% |
| Westar Energy, Inc. | WR | \$1.32 | \$29.28 | 4.51\% | 4.64\% | 6.09\% | 4.80\% | 6.50\% | 5.80\% | 9.42\% | 10.44\% | 11.15\% |
| PROXY GROUP MEAN |  |  |  | 4.13\% | 4.26\% | 5.76\% | 5.61\% | 7.86\% | 6.45\% | 9.01\% | 10.71\% | 13.21\% |
| PROXY GROUP MEDIAN |  |  |  | 4.15\% | 4.27\% | 5.06\% | 5.00\% | 5.50\% | 5.80\% | 9.32\% | 10.07\% | 10.80\% |

## Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 90-trading day average as of August 17, 2012
[3] Equals [1]/ [2]
[4] Equals [3] $\times(1+0.5 \times[8])$
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] $\times(1+0.5 \times$ Maximum([5], [6], [7])) + Maximum([5], [6], [7])

Constant Growth Discounted Cash Flow Model
180 Day Average Stock Price

|  |  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Annualized Dividend | Average Stock Price | Dividend Yield | Expected <br> Dividend Yield | Zacks Earnings Growth | First Call Earnings Growth | Value Line Earnings Growth | Average Earnings Growth | $\begin{aligned} & \text { Low } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { Mean } \\ & \text { ROE } \end{aligned}$ | $\begin{aligned} & \text { High } \\ & \text { ROE } \end{aligned}$ |
| American Electric Power Company, Inc. | AEP | \$1.88 | \$39.72 | 4.73\% | 4.82\% | 3.60\% | 3.37\% | 4.50\% | 3.82\% | 8.18\% | 8.65\% | 9.34\% |
| Cleco Corp. | CNL | \$1.35 | \$39.85 | 3.39\% | 3.47\% | N/A | 3.00\% | 6.50\% | 4.75\% | 6.44\% | 8.22\% | 10.00\% |
| Empire District Electric | EDE | \$1.00 | \$20.67 | 4.84\% | 5.03\% | N/A | 10.20\% | 6.00\% | 8.10\% | 10.98\% | 13.13\% | 15.28\% |
| Great Plains Energy Inc. | GXP | \$0.85 | \$20.81 | 4.09\% | 4.22\% | 7.75\% | 6.50\% | 5.50\% | 6.58\% | 9.70\% | 10.80\% | 11.99\% |
| IDACORP, Inc. | IDA | \$1.32 | \$41.08 | 3.21\% | 3.27\% | 5.00\% | 4.00\% | 2.00\% | 3.67\% | 5.25\% | 6.94\% | 8.29\% |
| Otter Tail Corporation | OTTR | \$1.19 | \$22.07 | 5.39\% | 5.70\% | 5.00\% | 5.00\% | 24.00\% | 11.33\% | 10.53\% | 17.03\% | 30.04\% |
| Pinnacle West Capital Corp. | PNW | \$2.10 | \$48.99 | 4.29\% | 4.41\% | 5.90\% | 6.52\% | 5.00\% | 5.81\% | 9.39\% | 10.22\% | 10.95\% |
| PNM Resources, Inc. | PNM | \$0.58 | \$18.67 | 3.11\% | 3.29\% | 9.30\% | 9.30\% | 16.00\% | 11.53\% | 12.55\% | 14.82\% | 19.36\% |
| Portland General Electric Company | POR | \$1.08 | \$25.50 | 4.24\% | 4.33\% | 4.13\% | 3.63\% | 5.50\% | 4.42\% | 7.94\% | 8.75\% | 9.85\% |
| Southern Company | SO | \$1.96 | \$45.64 | 4.29\% | 4.41\% | 5.06\% | 5.38\% | 5.00\% | 5.15\% | 9.40\% | 9.55\% | 9.79\% |
| Westar Energy, Inc. | WR | \$1.32 | \$28.62 | 4.61\% | 4.75\% | 6.09\% | 4.80\% | 6.50\% | 5.80\% | 9.52\% | 10.54\% | 11.26\% |
| PROXY GROUP MEAN |  |  |  | 4.20\% | 4.34\% | 5.76\% | 5.61\% | 7.86\% | 6.45\% | 9.08\% | 10.79\% | 13.29\% |
| PROXY GROUP MEDIAN |  |  |  | 4.29\% | 4.41\% | 5.06\% | 5.00\% | 5.50\% | 5.80\% | 9.40\% | 10.22\% | 10.95\% |

## Notes:

[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional, equals 180-trading day average as of August 17, 2012
[3] Equals [1]/ [2]
[4] Equals [3] $\times(1+0.5 \times[8])$
[5] Source: Zacks
[6] Source: Yahoo! Finance
[7] Source: Value Line
[8] Equals Average([5], [6], [7])
[9] Equals [3] $\times(1+0.5 \times$ Minimum([5], [6], [7])) + Minimum([5], [6], [7])
[10] Equals [4] + [8]
[11] Equals [3] $\times(1+0.5 \times$ Maximum([5], [6], [7])) + Maximum([5], [6], [7])

## Sharpe Ratio Derived Ex-Ante Market Risk Premium

| [1] | [2] | [3] | [4] | [5] |
| :---: | :---: | :---: | :---: | :---: |
| $R \mathrm{P}_{\mathrm{h}}$ | $\mathrm{Vol}_{\mathrm{h}}$ |  Historical <br> VOL $_{\mathrm{e}} \quad$ Sharpe <br> Ratio  |  | $R \mathrm{P}_{\mathrm{e}}$ |
| 6.60\% | 20.30\% | 24.64\% | 32.52\% | 8.01\% |
|  | [6] | [7] | [8] | [9] |
|  |  | Jan 13 VIX | Feb 13 VIX | Mar 13 VIX |
| Date | VXV | Futures | Futures | Futures |
| 8/17/2012 | 18.35 | 24.95 | 26.05 | 26.70 |
| 8/16/2012 | 18.55 | 25.10 | 26.10 | 26.75 |
| 8/15/2012 | 18.86 | 25.20 | 26.15 | 26.80 |
| 8/14/2012 | 18.51 | 25.15 | 26.20 | 26.85 |
| 8/13/2012 | 18.07 | 24.70 | 25.80 | 26.45 |
| 8/10/2012 | 18.14 | 24.85 | 25.85 | 26.45 |
| 8/9/2012 | 18.23 | 25.10 | 26.05 | 26.65 |
| 8/8/2012 | 18.58 | 25.15 | 26.05 | 26.65 |
| 8/7/2012 | 18.81 | 25.40 | 26.35 | 26.95 |
| 8/6/2012 | 18.74 | 25.20 | 26.10 | 26.65 |
| 8/3/2012 | 18.68 | 25.30 | 26.25 | 26.70 |
| 8/2/2012 | 20.23 | 26.15 | 26.95 | 27.40 |
| 8/1/2012 | 20.67 | 26.25 | 27.00 | 27.35 |
| 7/31/2012 | 20.78 | 26.05 | 26.80 | 27.25 |
| 7/30/2012 | 20.13 | 25.75 | 26.50 | 27.00 |
| 7/27/2012 | 19.66 | 25.60 | 26.25 | 26.70 |
| 7/26/2012 | 20.24 | 25.45 | 26.15 | 26.70 |
| 7/25/2012 | 21.88 | 26.50 | 27.15 | 27.65 |
| 7/24/2012 | 22.26 | 26.70 | 27.40 | 27.85 |
| 7/23/2012 | 21.18 | 26.45 | 27.10 | 27.55 |
| 7/20/2012 | 19.64 | 25.55 | 26.30 | 26.75 |
| 7/19/2012 | 18.61 | 25.25 | 25.90 | 26.25 |
| 7/18/2012 | 18.94 | 25.45 | 26.05 | 26.45 |
| 7/17/2012 | 18.92 | 25.25 | 25.85 | 26.35 |
| 7/16/2012 | 19.61 | 25.80 | 26.30 | 26.70 |
| 7/13/2012 | 19.39 | 25.75 | 26.30 | 26.70 |
| 7/12/2012 | 20.69 | 26.35 | 26.85 | 27.20 |
| 7/11/2012 | 20.25 | 26.20 | 26.65 | 27.00 |
| 7/10/2012 | 20.87 | 26.55 | 27.00 | 27.40 |
| 7/9/2012 | 20.37 | 26.40 | 26.90 | 27.40 |
| Average: | 24.64 |  |  |  |

Notes:
[1] Source: Morningstar, Inc.
$R P_{h}=$ historical arithmetic average Risk Premium
[2] Source: Morningstar, Inc.
Vol $_{h}=$ historical market volatility
[3] $\mathrm{Vol}_{e}=$ expected market volatility (average of Cols. [6] to [9])
[4] Equals [1] / [2]
[5] Equals [3] x [4]
[6] Source: Bloomberg Professional
[7] Source: Bloomberg Professional
[8] Source: Bloomberg Professional
[9] Source: Bloomberg Professional

|  |  | Ex-Ante Market Risk Premium Market DCF Method Based - Bloomberg |  |  |  | [8] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $[1]$ <br> S\&P 500 <br> Est. Required <br> Market Return <br> $13.29 \%$ | [2] <br> Current $30-$ Year <br> Treasury (30-day <br> average) <br> $2.65 \%$ | [3] <br> Implied Market Risk Premium 10.64\% |  |  |  |
|  |  | [4] | [5] | [6] | [7] |  | [9] |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| 3M Co | MMM | 64818.11 | 0.50\% | 2.33\% | 12.00\% | 14.47\% | 0.0722\% |
| Abbott Laboratories | ABT | 102885.52 | 0.79\% | 3.12\% | 9.96\% | 13.23\% | 0.1048\% |
| Abercrombie \& Fitch Co | ANF | 3067.67 | 0.02\% | 1.90\% | 18.11\% | 20.18\% | 0.0048\% |
| Accenture PLC | ACN | 42743.65 | 0.33\% | 2.10\% | 13.25\% | 15.49\% | 0.0510\% |
| ACE Ltd | ACE | 25086.05 | 0.19\% | 2.49\% | 7.56\% | 10.14\% | 0.0196\% |
| Adobe Systems Inc | ADBE | 16670.75 | 0.13\% | 0.00\% | 11.17\% | 11.17\% | 0.0143\% |
| Advanced Micro Devices Inc | AMD | 2922.20 | 0.02\% | 0.00\% | 8.75\% | 8.75\% | 0.0020\% |
| AES Corp/The | AES | 8729.11 | 0.07\% | 0.66\% | 8.50\% | 9.19\% | 0.0062\% |
| Aetna Inc | AET | 13378.03 | 0.10\% | 1.71\% | 10.60\% | 12.40\% | 0.0128\% |
| Aflac Inc | AFL | 21858.92 | 0.17\% | 2.85\% | 13.33\% | 16.37\% | 0.0275\% |
| Agilent Technologies Inc | A | 12899.23 | 0.10\% | 0.74\% | 10.87\% | 11.65\% | 0.0116\% |
| AGL Resources Inc | GAS | 4712.39 | 0.04\% | 4.56\% | 4.00\% | 8.65\% | 0.0031\% |
| Air Products \& Chemicals Inc | APD | 17904.01 | 0.14\% | 2.96\% | 9.99\% | 13.10\% | 0.0180\% |
| Airgas Inc | ARG | 6426.86 | 0.05\% | 1.78\% | 12.89\% | 14.79\% | 0.0073\% |
| Akamai Technologies Inc | AKAM | 6645.45 | 0.05\% | 0.00\% | 14.25\% | 14.25\% | 0.0073\% |
| Alcoa Inc | AA | 9516.68 | 0.07\% | 1.35\% | 10.00\% | 11.41\% | 0.0084\% |
| Alexion Pharmaceuticals Inc | ALXN | 19610.98 | 0.15\% | 0.00\% | 40.38\% | 40.38\% | 0.0609\% |
| Allegheny Technologies Inc | ATI | 3643.92 | 0.03\% | 2.12\% | 15.00\% | 17.28\% | 0.0048\% |
| Allergan Inc/United States | AGN | 26592.54 | 0.20\% | 0.23\% | 14.50\% | 14.75\% | 0.0302\% |
| Allstate Corp/The | ALL | 18596.93 | 0.14\% | 2.29\% | 9.00\% | 11.40\% | 0.0163\% |
| Alpha Natural Resources Inc | ANR | 1551.29 | 0.01\% | 0.00\% | 5.00\% | 5.00\% | 0.0006\% |
| Altera Corp | ALTR | 11549.10 | 0.09\% | 0.93\% | 12.29\% | 13.27\% | 0.0118\% |
| Altria Group Inc | MO | 71117.79 | 0.55\% | 4.88\% | 7.64\% | 12.71\% | 0.0696\% |
| Amazon.com Inc | AMZN | 108473.05 | 0.83\% | 0.00\% | 29.34\% | 29.34\% | 0.2450\% |
| Ameren Corp | AEE | 8171.94 | 0.06\% | 4.74\% | -4.00\% | 0.65\% | 0.0004\% |
| American Electric Power Co Inc | AEP | 20763.53 | 0.16\% | 4.43\% | 4.33\% | 8.86\% | 0.0142\% |
| American Express Co | AXP | 64436.59 | 0.50\% | 1.39\% | 10.23\% | 11.70\% | 0.0580\% |
| American International Group Inc | AIG | 56027.19 | 0.43\% | 0.00\% | 12.33\% | 12.33\% | 0.0532\% |
| American Tower Corp | AMT | 27775.66 | 0.21\% | 1.26\% | 20.86\% | 22.25\% | 0.0476\% |
| Ameriprise Financial Inc | AMP | 11659.61 | 0.09\% | 2.34\% | 10.55\% | 13.01\% | 0.0117\% |
| AmerisourceBergen Corp | ABC | 9547.10 | 0.07\% | 1.31\% | 12.00\% | 13.39\% | 0.0098\% |
| Amgen Inc | AMGN | 64312.96 | 0.49\% | 1.80\% | 10.58\% | 12.48\% | 0.0618\% |
| Amphenol Corp | APH | 10053.64 | 0.08\% | 0.64\% | 15.00\% | 15.69\% | 0.0121\% |
| Anadarko Petroleum Corp | APC | 34887.59 | 0.27\% | 0.52\% | 9.92\% | 10.46\% | 0.0281\% |
| Analog Devices Inc | ADI | 12112.52 | 0.09\% | 2.85\% | 12.33\% | 15.36\% | 0.0143\% |
| Aon PLC | AON | 17048.86 | 0.13\% | 1.18\% | 8.33\% | 9.56\% | 0.0125\% |
| Apache Corp | APA | 34802.52 | 0.27\% | 0.77\% | 7.83\% | 8.62\% | 0.0231\% |
| Apartment Investment \& Management Co | AIV | 3838.00 | 0.03\% | 2.90\% | 9.26\% | 12.30\% | 0.0036\% |
| Apollo Group Inc | APOL | 3274.27 | 0.03\% | 0.00\% | 9.78\% | 9.78\% | 0.0025\% |
| Apple Inc | AAPL | 614638.38 | 4.73\% | 0.40\% | 21.75\% | 22.20\% | 1.0501\% |
| Applied Materials Inc | AMAT | 15239.57 | 0.12\% | 2.80\% | 8.67\% | 11.59\% | 0.0136\% |
| Archer-Daniels-Midland Co | ADM | 17503.62 | 0.13\% | 2.67\% | 10.00\% | 12.81\% | 0.0173\% |
| Assurant Inc | AIZ | 2825.80 | 0.02\% | 2.32\% | 10.33\% | 12.78\% | 0.0028\% |
| AT\&T Inc | T | 211549.22 | 1.63\% | 4.82\% | 6.71\% | 11.69\% | 0.1904\% |
| Autodesk Inc | ADSK | 7978.66 | 0.06\% | 0.00\% | 12.40\% | 12.40\% | 0.0076\% |
| Automatic Data Processing Inc | ADP | 28533.22 | 0.22\% | 2.82\% | 10.20\% | 13.16\% | 0.0289\% |
| AutoNation Inc | AN | 4819.46 | 0.04\% | 0.00\% | 20.66\% | 20.66\% | 0.0077\% |
| AutoZone Inc | AZO | 13688.44 | 0.11\% | 0.00\% | 16.57\% | 16.57\% | 0.0175\% |
| AvalonBay Communities Inc | AVB | 13732.11 | 0.11\% | 2.74\% | 10.14\% | 13.02\% | 0.0138\% |
| Avery Dennison Corp | AVY | 3250.90 | 0.03\% | 3.36\% | 7.00\% | 10.47\% | 0.0026\% |
| Avon Products Inc | AVP | 6982.22 | 0.05\% | 5.62\% | -0.06\% | 5.56\% | 0.0030\% |
| Baker Hughes Inc | BHI | 21002.08 | 0.16\% | 1.25\% | 23.00\% | 24.40\% | 0.0394\% |
| Ball Corp | BLL | 6610.09 | 0.05\% | 0.93\% | 10.00\% | 10.98\% | 0.0056\% |
| Bank of America Corp | BAC | 88802.07 | 0.68\% | 0.51\% | 13.45\% | 13.99\% | 0.0956\% |
| Bank of New York Mellon Corp/The | BK | 27098.98 | 0.21\% | 2.27\% | 17.63\% | 20.10\% | 0.0419\% |
| Baxter International Inc | BAX | 32352.31 | 0.25\% | 2.37\% | 8.80\% | 11.28\% | 0.0281\% |
| BB\&T Corp | BBT | 22218.30 | 0.17\% | 2.46\% | 10.56\% | 13.14\% | 0.0225\% |
| Beam Inc | BEAM | 9213.87 | 0.07\% | 1.41\% | 12.81\% | 14.31\% | 0.0101\% |
| Becton Dickinson and Co | BDX | 15311.85 | 0.12\% | 2.30\% | 8.00\% | 10.39\% | 0.0122\% |
| Bed Bath \& Beyond Inc | BBBY | 15361.59 | 0.12\% | 0.00\% | 14.67\% | 14.67\% | 0.0173\% |
| Bemis Co Inc | BMS | 3181.04 | 0.02\% | 3.30\% | 6.00\% | 9.40\% | 0.0023\% |
| Berkshire Hathaway Inc | BRK/B | 212298.70 | N/A | 0.00\% | N/A | N/A | N/A |
| Best Buy Co Inc | BBY | 6050.28 | 0.05\% | 3.71\% | 7.72\% | 11.57\% | 0.0054\% |
| Big Lots Inc | BIG | 2472.36 | 0.02\% | 0.00\% | 10.78\% | 10.78\% | 0.0021\% |
| Biogen Idec Inc | BIIB | 34062.32 | 0.26\% | 0.00\% | 14.70\% | 14.70\% | 0.0385\% |
| BlackRock Inc | BLK | 31011.68 | 0.24\% | 3.34\% | 12.50\% | 16.05\% | 0.0383\% |
| BMC Software Inc | BMC | 6758.08 | 0.05\% | 0.00\% | 10.20\% | 10.20\% | 0.0053\% |
| Boeing $\mathrm{Co} /$ The | BA | 55542.80 | 0.43\% | 2.37\% | 11.83\% | 14.34\% | 0.0613\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| BorgWarner Inc | BWA | 8080.69 | 0.06\% | 0.13\% | 20.05\% | 20.20\% | 0.0126\% |
| Boston Properties Inc | BXP | 16773.89 | 0.13\% | 1.99\% | 5.41\% | 7.45\% | 0.0096\% |
| Boston Scientific Corp | BSX | 8074.01 | 0.06\% | 0.00\% | 9.25\% | 9.25\% | 0.0057\% |
| Bristol-Myers Squibb Co | BMY | 53308.95 | 0.41\% | 4.31\% | 7.90\% | 12.38\% | 0.0508\% |
| Broadcom Corp | BRCM | 19878.04 | 0.15\% | 1.12\% | 15.00\% | 16.21\% | 0.0248\% |
| Brown-Forman Corp | BF/B | 13009.13 | N/A | 1.58\% | N/A | N/A | N/A |
| CA Inc | CA | 12185.67 | 0.09\% | 3.89\% | 10.00\% | 14.08\% | 0.0132\% |
| Cablevision Systems Corp | CVC | 4185.78 | 0.03\% | 3.90\% | 6.80\% | 10.83\% | 0.0035\% |
| Cabot Oil \& Gas Corp | COG | 8853.12 | N/A | 0.21\% | N/A | N/A | N/A |
| Cameron International Corp | CAM | 13488.62 | 0.10\% | 0.00\% | 17.00\% | 17.00\% | 0.0176\% |
| Campbell Soup Co | CPB | 11054.35 | 0.09\% | 3.37\% | 6.50\% | 9.98\% | 0.0085\% |
| Capital One Financial Corp | COF | 33096.88 | 0.25\% | 0.35\% | 9.72\% | 10.09\% | 0.0257\% |
| Cardinal Health Inc | CAH | 13784.20 | 0.11\% | 2.03\% | 10.50\% | 12.63\% | 0.0134\% |
| CareFusion Corp | CFN | 6020.58 | 0.05\% | 0.00\% | 10.42\% | 10.42\% | 0.0048\% |
| CarMax Inc | KMX | 6777.43 | 0.05\% | 0.00\% | 13.16\% | 13.16\% | 0.0069\% |
| Carnival Corp | CCL | 28169.32 | 0.22\% | 2.88\% | 16.77\% | 19.89\% | 0.0431\% |
| Caterpillar Inc | CAT | 59636.90 | 0.46\% | 2.12\% | 13.33\% | 15.59\% | 0.0716\% |
| CBRE Group Inc | CBG | 5973.59 | 0.05\% | 0.00\% | 13.33\% | 13.33\% | 0.0061\% |
| CBS Corp | CBS | 23244.28 | 0.18\% | 1.19\% | 10.96\% | 12.22\% | 0.0219\% |
| Celgene Corp | CELG | 30829.56 | 0.24\% | 0.00\% | 23.89\% | 23.89\% | 0.0567\% |
| CenterPoint Energy Inc | CNP | 8787.06 | 0.07\% | 3.93\% | 5.33\% | 9.37\% | 0.0063\% |
| CenturyLink Inc | CTL | 26026.75 | 0.20\% | 6.94\% | 3.14\% | 10.19\% | 0.0204\% |
| Cerner Corp | CERN | 12204.99 | 0.09\% | 0.00\% | 19.14\% | 19.14\% | 0.0180\% |
| CF Industries Holdings Inc | CF | 13974.97 | 0.11\% | 0.75\% | 6.54\% | 7.32\% | 0.0079\% |
| CH Robinson Worldwide Inc | CHRW | 9302.55 | 0.07\% | 2.32\% | 14.80\% | 17.29\% | 0.0124\% |
| Charles Schwab Corp/The | SCHW | 17022.06 | 0.13\% | 1.77\% | 16.00\% | 17.92\% | 0.0235\% |
| Chesapeake Energy Corp | CHK | 13321.42 | 0.10\% | 1.37\% | 8.89\% | 10.32\% | 0.0106\% |
| Chevron Corp | CVX | 220956.59 | 1.70\% | 3.11\% | -1.11\% | 1.99\% | 0.0338\% |
| Chipotle Mexican Grill Inc | CMG | 9433.07 | 0.07\% | 0.00\% | 21.67\% | 21.67\% | 0.0157\% |
| Chubb Corp/The | CB | 19609.02 | 0.15\% | 2.25\% | 7.44\% | 9.78\% | 0.0148\% |
| Cigna Corp | Cl | 12881.20 | 0.10\% | 0.08\% | 10.45\% | 10.53\% | 0.0104\% |
| Cincinnati Financial Corp | CINF | 6390.35 | 0.05\% | 4.11\% | 5.00\% | 9.22\% | 0.0045\% |
| Cintas Corp | CTAS | 5234.54 | 0.04\% | 1.43\% | 11.17\% | 12.68\% | 0.0051\% |
| Cisco Systems Inc | CSCO | 102905.64 | 0.79\% | 2.77\% | 9.56\% | 12.46\% | 0.0987\% |
| Citigroup Inc | C | 90144.53 | 0.69\% | 0.16\% | 8.33\% | 8.50\% | 0.0589\% |
| Citrix Systems Inc | CTXS | 14433.73 | 0.11\% | 0.00\% | 15.66\% | 15.66\% | 0.0174\% |
| Cliffs Natural Resources Inc | CLF | 5907.74 | 0.05\% | 5.34\% | 11.00\% | 16.63\% | 0.0076\% |
| Clorox Co/The | CLX | 9407.81 | 0.07\% | 3.62\% | 8.42\% | 12.19\% | 0.0088\% |
| CME Group Inc | CME | 17895.18 | 0.14\% | 4.65\% | 12.67\% | 17.61\% | 0.0243\% |
| CMS Energy Corp | CMS | 6160.94 | 0.05\% | 4.10\% | 6.00\% | 10.22\% | 0.0048\% |
| Coach Inc | COH | 16009.43 | 0.12\% | 2.02\% | 13.57\% | 15.73\% | 0.0194\% |
| Coca-Cola Co/The | KO | 177780.95 | 1.37\% | 2.78\% | 7.71\% | 10.59\% | 0.1449\% |
| Coca-Cola Enterprises Inc | CCE | 8986.04 | 0.07\% | 2.14\% | 6.12\% | 8.32\% | 0.0058\% |
| Cognizant Technology Solutions Corp | CTSH | 19418.68 | 0.15\% | 0.00\% | 18.67\% | 18.67\% | 0.0279\% |
| Colgate-Palmolive Co | CL | 50342.59 | 0.39\% | 2.30\% | 8.64\% | 11.03\% | 0.0427\% |
| Comcast Corp | CMCSA | 91658.84 | 0.71\% | 1.82\% | 16.81\% | 18.79\% | 0.1325\% |
| Comerica Inc | CMA | 6056.41 | 0.05\% | 1.78\% | 12.20\% | 14.08\% | 0.0066\% |
| Computer Sciences Corp | CSC | 5158.91 | 0.04\% | 2.41\% | 8.00\% | 10.50\% | 0.0042\% |
| ConAgra Foods Inc | CAG | 10155.41 | 0.08\% | 4.02\% | 7.00\% | 11.16\% | 0.0087\% |
| ConocoPhillips | COP | 69302.19 | N/A | 4.69\% | N/A | N/A | N/A |
| CONSOL Energy Inc | CNX | 7700.68 | 0.06\% | 1.48\% | 12.00\% | 13.57\% | 0.0080\% |
| Consolidated Edison Inc | ED | 18059.74 | 0.14\% | 3.92\% | 3.26\% | 7.25\% | 0.0101\% |
| Constellation Brands Inc | STZ | 5737.66 | 0.04\% | 0.00\% | 10.82\% | 10.82\% | 0.0048\% |
| Cooper Industries PLC | CBE | 11814.97 | 0.09\% | 1.66\% | 12.40\% | 14.16\% | 0.0129\% |
| Corning Inc | GLW | 17763.99 | 0.14\% | 2.51\% | 9.50\% | 12.13\% | 0.0166\% |
| Costco Wholesale Corp | COST | 41388.37 | 0.32\% | 1.06\% | 13.70\% | 14.84\% | 0.0473\% |
| Coventry Health Care Inc | CVH | 5606.00 | 0.04\% | 1.00\% | 12.33\% | 13.40\% | 0.0058\% |
| Covidien PLC | COV | 27274.30 | 0.21\% | 1.54\% | 10.80\% | 12.42\% | 0.0261\% |
| CR Bard Inc | BCR | 8268.91 | 0.06\% | 0.80\% | 9.75\% | 10.59\% | 0.0067\% |
| Crown Castle International Corp | CCI | 18294.33 | 0.14\% | 0.00\% | 38.93\% | 38.93\% | 0.0548\% |
| CSX Corp | CSX | 24316.30 | 0.19\% | 2.32\% | 15.00\% | 17.49\% | 0.0327\% |
| Cummins Inc | CMI | 19850.26 | 0.15\% | 1.63\% | 12.25\% | 13.98\% | 0.0214\% |
| CVS Caremark Corp | CVS | 58204.79 | 0.45\% | 1.40\% | 13.50\% | 14.99\% | 0.0672\% |
| Danaher Corp | DHR | 37507.47 | 0.29\% | 0.18\% | 15.00\% | 15.20\% | 0.0439\% |
| Darden Restaurants Inc | DRI | 6887.46 | 0.05\% | 3.75\% | 12.74\% | 16.73\% | 0.0089\% |
| DaVita Inc | DVA | 9126.06 | 0.07\% | 0.00\% | 12.57\% | 12.57\% | 0.0088\% |
| Dean Foods Co | DF | 3003.64 | 0.02\% | 0.00\% | 6.50\% | 6.50\% | 0.0015\% |
| Deere \& Co | DE | 31075.10 | 0.24\% | 2.21\% | 14.67\% | 17.04\% | 0.0408\% |
| Dell Inc | DELL | 21775.19 | 0.17\% | 1.29\% | 7.17\% | 8.50\% | 0.0142\% |
| Denbury Resources Inc | DNR | 6235.29 | N/A | 0.00\% | N/A | N/A | N/A |
| DENTSPLY International Inc | XRAY | 5399.17 | 0.04\% | 0.55\% | 11.50\% | 12.08\% | 0.0050\% |
| Devon Energy Corp | DVN | 24286.18 | 0.19\% | 1.30\% | 6.20\% | 7.54\% | 0.0141\% |
| DeVry Inc | DV | 1303.44 | 0.01\% | 1.56\% | 9.48\% | 11.11\% | 0.0011\% |
| Diamond Offshore Drilling Inc | DO | 9463.76 | 0.07\% | 5.23\% | 17.33\% | 23.01\% | 0.0168\% |
| DIRECTV | DTV | 32447.47 | 0.25\% | 0.00\% | 18.19\% | 18.19\% | 0.0454\% |
| Discover Financial Services | DFS | 19160.02 | 0.15\% | 1.16\% | 10.67\% | 11.89\% | 0.0175\% |
| Discovery Communications Inc | DISCA | 19288.11 | 0.15\% | 0.00\% | 20.75\% | 20.75\% | 0.0308\% |
| Dollar Tree Inc | DLTR | 11101.68 | 0.09\% | 0.00\% | 17.54\% | 17.54\% | 0.0150\% |
| Dominion Resources Inc/VA | D | 30972.49 | 0.24\% | 3.88\% | 4.85\% | 8.82\% | 0.0210\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| Dover Corp | DOV | 10590.00 | 0.08\% | 2.23\% | 14.33\% | 16.73\% | 0.0136\% |
| Dow Chemical Co/The | DOW | 36470.38 | 0.28\% | 3.90\% | 5.33\% | 9.34\% | 0.0262\% |
| DR Horton Inc | DHI | 5852.69 | 0.05\% | 0.74\% | 4.00\% | 4.76\% | 0.0021\% |
| Dr Pepper Snapple Group Inc | DPS | 9571.82 | 0.07\% | 2.98\% | 7.30\% | 10.38\% | 0.0077\% |
| DTE Energy Co | DTE | 10332.77 | 0.08\% | 4.06\% | 5.00\% | 9.16\% | 0.0073\% |
| Duke Energy Corp | DUK | 46494.91 | 0.36\% | 4.62\% | 4.25\% | 8.96\% | 0.0321\% |
| Dun \& Bradstreet Corp/The | DNB | 3715.36 | 0.03\% | 1.84\% | 10.00\% | 11.93\% | 0.0034\% |
| E*TRADE Financial Corp | ETFC | 2517.38 | 0.02\% | 0.00\% | 26.00\% | 26.00\% | 0.0050\% |
| Eastman Chemical Co | EMN | 7723.04 | 0.06\% | 1.84\% | 7.50\% | 9.41\% | 0.0056\% |
| Eaton Corp | ETN | 15542.93 | 0.12\% | 3.30\% | 10.00\% | 13.46\% | 0.0161\% |
| eBay Inc | EBAY | 59021.09 | 0.45\% | 0.00\% | 12.75\% | 12.75\% | 0.0579\% |
| Ecolab Inc | ECL | 19349.69 | 0.15\% | 1.21\% | 13.60\% | 14.89\% | 0.0222\% |
| Edison International | EIX | 14498.60 | 0.11\% | 2.93\% | -0.37\% | 2.56\% | 0.0029\% |
| Edwards Lifesciences Corp | EW | 11547.08 | 0.09\% | 0.00\% | 20.17\% | 20.17\% | 0.0179\% |
| El du Pont de Nemours \& Co | DD | 47188.52 | 0.36\% | 3.32\% | 7.30\% | 10.74\% | 0.0390\% |
| Electronic Arts Inc | EA | 4311.05 | 0.03\% | 0.00\% | 16.55\% | 16.55\% | 0.0055\% |
| Eli Lilly \& Co | LLY | 49144.02 | 0.38\% | 4.63\% | -1.40\% | 3.20\% | 0.0121\% |
| EMC Corp/MA | EMC | 55448.18 | 0.43\% | 0.00\% | 15.00\% | 15.00\% | 0.0640\% |
| Emerson Electric Co | EMR | 38359.05 | 0.30\% | 3.03\% | 12.33\% | 15.55\% | 0.0459\% |
| Ensco PLC | ESV | 13269.88 | 0.10\% | 2.66\% | 16.67\% | 19.55\% | 0.0200\% |
| Entergy Corp | ETR | 12281.13 | 0.09\% | 4.82\% | 2.00\% | 6.87\% | 0.0065\% |
| EOG Resources Inc | EOG | 29608.08 | 0.23\% | 0.62\% | 10.55\% | 11.19\% | 0.0255\% |
| EQT Corp | EQT | 8553.82 | 0.07\% | 1.54\% | 30.00\% | 31.77\% | 0.0209\% |
| Equifax Inc | EFX | 5632.40 | 0.04\% | 1.50\% | 11.00\% | 12.58\% | 0.0055\% |
| Equity Residential | EQR | 18160.21 | 0.14\% | 2.91\% | 7.78\% | 10.80\% | 0.0151\% |
| Estee Lauder Cos Inc/The | EL | 23492.62 | 0.18\% | 1.17\% | 14.07\% | 15.33\% | 0.0277\% |
| Exelon Corp | EXC | 32171.18 | 0.25\% | 5.57\% | -1.85\% | 3.67\% | 0.0091\% |
| Expedia Inc | EXPE | 7057.17 | 0.05\% | 0.79\% | 11.73\% | 12.57\% | 0.0068\% |
| Expeditors International of Washington I | EXPD | 8133.26 | 0.06\% | 1.44\% | 9.33\% | 10.84\% | 0.0068\% |
| Express Scripts Holding Co | ESRX | 49415.21 | 0.38\% | 0.00\% | 16.88\% | 16.88\% | 0.0642\% |
| Exxon Mobil Corp | XOM | 405602.63 | 3.12\% | 2.47\% | 3.44\% | 5.95\% | 0.1857\% |
| F5 Networks Inc | FFIV | 8054.49 | 0.06\% | 0.00\% | 18.67\% | 18.67\% | 0.0116\% |
| Family Dollar Stores Inc | FDO | 7494.34 | 0.06\% | 1.26\% | 13.90\% | 15.25\% | 0.0088\% |
| Fastenal Co | FAST | 12950.81 | 0.10\% | 1.61\% | 19.10\% | 20.86\% | 0.0208\% |
| Federated Investors Inc | FII | 2106.37 | 0.02\% | 4.84\% | 8.00\% | 13.03\% | 0.0021\% |
| FedEx Corp | FDX | 28740.93 | 0.22\% | 0.62\% | 13.14\% | 13.80\% | 0.0305\% |
| Fidelity National Information Services I | FIS | 9471.75 | 0.07\% | 1.87\% | 12.40\% | 14.38\% | 0.0105\% |
| Fifth Third Bancorp | FITB | 13305.86 | 0.10\% | 2.40\% | 5.00\% | 7.46\% | 0.0076\% |
| First Horizon National Corp | FHN | 2149.72 | 0.02\% | 0.60\% | 8.33\% | 8.96\% | 0.0015\% |
| First Solar Inc | FSLR | 2139.45 | 0.02\% | 0.00\% | -1.00\% | -1.00\% | -0.0002\% |
| FirstEnergy Corp | FE | 19179.41 | 0.15\% | 4.80\% | 0.33\% | 5.14\% | 0.0076\% |
| Fiserv Inc | FISV | 9612.19 | 0.07\% | 0.00\% | 12.43\% | 12.43\% | 0.0092\% |
| FLIR Systems Inc | FLIR | 3128.28 | 0.02\% | 1.35\% | 10.00\% | 11.42\% | 0.0027\% |
| Flowserve Corp | FLS | 6531.83 | N/A | 1.12\% | N/A | N/A | N/A |
| Fluor Corp | FLR | 9129.83 | 0.07\% | 1.01\% | 13.30\% | 14.38\% | 0.0101\% |
| FMC Corp | FMC | 7563.47 | 0.06\% | 0.72\% | 10.45\% | 11.20\% | 0.0065\% |
| FMC Technologies Inc | FTI | 11444.84 | 0.09\% | 0.00\% | 13.00\% | 13.00\% | 0.0115\% |
| Ford Motor Co | F | 36690.55 | 0.28\% | 2.08\% | 8.62\% | 10.79\% | 0.0305\% |
| Forest Laboratories Inc | FRX | 9153.15 | 0.07\% | 0.00\% | 10.64\% | 10.64\% | 0.0075\% |
| Fossil Inc | FOSL | 5351.62 | 0.04\% | 0.00\% | 18.45\% | 18.45\% | 0.0076\% |
| Franklin Resources Inc | BEN | 25348.65 | 0.20\% | 2.58\% | 9.00\% | 11.70\% | 0.0228\% |
| Freeport-McMoRan Copper \& Gold Inc | FCX | 34894.35 | N/A | 3.36\% | N/A | N/A | N/A |
| Frontier Communications Corp | FTR | 4658.12 | 0.04\% | 8.57\% | -9.05\% | -0.86\% | -0.0003\% |
| GameStop Corp | GME | 2415.30 | 0.02\% | 2.09\% | 8.45\% | 10.63\% | 0.0020\% |
| Gannett Co Inc | GCI | 3600.91 | 0.03\% | 4.76\% | 6.00\% | 10.90\% | 0.0030\% |
| Gap Inc/The | GPS | 17240.03 | 0.13\% | 1.38\% | 11.18\% | 12.64\% | 0.0168\% |
| General Dynamics Corp | GD | 23459.75 | 0.18\% | 3.00\% | 6.60\% | 9.70\% | 0.0175\% |
| General Electric Co | GE | 222183.69 | 1.71\% | 3.22\% | 11.50\% | 14.90\% | 0.2549\% |
| General Mills Inc | GIS | 25139.28 | 0.19\% | 3.38\% | 8.00\% | 11.52\% | 0.0223\% |
| Genuine Parts Co | GPC | 10002.45 | 0.08\% | 3.07\% | 8.23\% | 11.42\% | 0.0088\% |
| Genworth Financial Inc | GNW | 2718.72 | 0.02\% | 0.00\% | 5.00\% | 5.00\% | 0.0010\% |
| Gilead Sciences Inc | GILD | 42935.26 | 0.33\% | 0.00\% | 18.06\% | 18.06\% | 0.0597\% |
| Goldman Sachs Group Inc/The | GS | 52713.78 | 0.41\% | 1.62\% | 11.03\% | 12.74\% | 0.0517\% |
| Goodyear Tire \& Rubber Co/The | GT | 2978.35 | 0.02\% | 0.10\% | 46.30\% | 46.42\% | 0.0106\% |
| Google Inc | GOOG | 218455.28 | 1.68\% | 0.00\% | 16.23\% | 16.23\% | 0.2729\% |
| H\&R Block Inc | HRB | 4637.51 | 0.04\% | 4.72\% | 11.00\% | 15.98\% | 0.0057\% |
| Halliburton Co | HAL | 32740.31 | 0.25\% | 1.03\% | 20.50\% | 21.64\% | 0.0545\% |
| Harley-Davidson Inc | HOG | 9788.31 | 0.08\% | 1.44\% | 13.00\% | 14.54\% | 0.0110\% |
| Harman International Industries Inc | HAR | 3093.58 | 0.02\% | 1.09\% | 20.00\% | 21.19\% | 0.0050\% |
| Harris Corp | HRS | 5295.22 | 0.04\% | 2.90\% | 4.00\% | 6.96\% | 0.0028\% |
| Hartford Financial Services Group Inc | HIG | 8141.02 | 0.06\% | 2.18\% | 9.50\% | 11.79\% | 0.0074\% |
| Hasbro Inc | HAS | 4966.94 | 0.04\% | 3.69\% | 9.00\% | 12.86\% | 0.0049\% |
| HCP Inc | HCP | 19478.90 | 0.15\% | 4.42\% | 5.23\% | 9.77\% | 0.0146\% |
| Health Care REIT Inc | HCN | 13682.03 | 0.11\% | 4.96\% | 6.09\% | 11.20\% | 0.0118\% |
| Helmerich \& Payne Inc | HP | 5218.05 | 0.04\% | 0.57\% | 8.00\% | 8.59\% | 0.0034\% |
| Hershey Co/The | HSY | 16481.85 | 0.13\% | 2.05\% | 8.08\% | 10.21\% | 0.0130\% |
| Hess Corp | HES | 17311.27 | 0.13\% | 0.81\% | 5.13\% | 5.96\% | 0.0079\% |
| Hewlett-Packard Co | HPQ | 39692.99 | 0.31\% | 2.41\% | 4.25\% | 6.72\% | 0.0205\% |
| HJ Heinz Co | HNZ | 17883.44 | 0.14\% | 3.70\% | 8.00\% | 11.85\% | 0.0163\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| Home Depot Inc/The | HD | 86375.27 | 0.66\% | 2.16\% | 15.75\% | 18.08\% | 0.1202\% |
| Honeywell International Inc | HON | 46330.07 | 0.36\% | 2.54\% | 15.00\% | 17.73\% | 0.0632\% |
| Hormel Foods Corp | HRL | 7542.57 | 0.06\% | 2.35\% | 11.00\% | 13.48\% | 0.0078\% |
| Hospira Inc | HSP | 5665.01 | 0.04\% | 0.00\% | 3.35\% | 3.35\% | 0.0015\% |
| Host Hotels \& Resorts Inc | HST | 11207.29 | 0.09\% | 1.71\% | 13.30\% | 15.12\% | 0.0130\% |
| Hudson City Bancorp Inc | HCBK | 3496.24 | 0.03\% | 4.80\% | 0.50\% | 5.32\% | 0.0014\% |
| Humana Inc | HUM | 11075.68 | 0.09\% | 1.49\% | 9.00\% | 10.56\% | 0.0090\% |
| Huntington Bancshares Inc/OH | HBAN | 5609.65 | 0.04\% | 2.46\% | 5.33\% | 7.86\% | 0.0034\% |
| Illinois Tool Works Inc | ITW | 27796.20 | 0.21\% | 2.48\% | 7.65\% | 10.23\% | 0.0219\% |
| Ingersoll-Rand PLC | IR | 14561.84 | 0.11\% | 1.32\% | 11.00\% | 12.39\% | 0.0139\% |
| Integrys Energy Group Inc | TEG | 4434.23 | 0.03\% | 4.80\% | 4.30\% | 9.21\% | 0.0031\% |
| Intel Corp | INTC | 130878.48 | 1.01\% | 3.30\% | 10.76\% | 14.24\% | 0.1434\% |
| IntercontinentalExchange Inc | ICE | 9838.12 | 0.08\% | 0.00\% | 14.00\% | 14.00\% | 0.0106\% |
| International Business Machines Corp | IBM | 227697.84 | 1.75\% | 1.63\% | 9.67\% | 11.38\% | 0.1994\% |
| International Flavors \& Fragrances Inc | IFF | 5039.30 | 0.04\% | 2.07\% | 3.00\% | 5.10\% | 0.0020\% |
| International Game Technology | IGT | 3154.45 | 0.02\% | 2.03\% | 13.50\% | 15.67\% | 0.0038\% |
| International Paper Co | IP | 15280.45 | 0.12\% | 3.01\% | 5.00\% | 8.08\% | 0.0095\% |
| Interpublic Group of Cos Inc/The | IPG | 5075.05 | 0.04\% | 2.14\% | 9.33\% | 11.57\% | 0.0045\% |
| Intuit Inc | INTU | 17347.03 | 0.13\% | 0.63\% | 15.14\% | 15.82\% | 0.0211\% |
| Intuitive Surgical Inc | ISRG | 20360.02 | 0.16\% | 0.00\% | 21.17\% | 21.17\% | 0.0332\% |
| Invesco Ltd | IVZ | 10806.59 | 0.08\% | 2.82\% | 12.00\% | 14.99\% | 0.0125\% |
| Iron Mountain Inc | IRM | 5679.54 | 0.04\% | 3.25\% | 13.67\% | 17.14\% | 0.0075\% |
| Jabil Circuit Inc | JBL | 4886.36 | 0.04\% | 1.32\% | 12.00\% | 13.40\% | 0.0050\% |
| Jacobs Engineering Group Inc | JEC | 5408.91 | 0.04\% | 0.00\% | 13.23\% | 13.23\% | 0.0055\% |
| JC Penney Co Inc | JCP | 5347.28 | 0.04\% | 1.61\% | 21.93\% | 23.72\% | 0.0098\% |
| JDS Uniphase Corp | JDSU | 2790.04 | 0.02\% | 0.00\% | 14.00\% | 14.00\% | 0.0030\% |
| JM Smucker Co/The | SJM | 9331.96 | 0.07\% | 2.41\% | 8.00\% | 10.51\% | 0.0075\% |
| Johnson \& Johnson | JNJ | 187561.50 | 1.44\% | 3.50\% | 6.37\% | 9.98\% | 0.1441\% |
| Johnson Controls Inc | JCI | 18595.49 | 0.14\% | 2.50\% | 16.95\% | 19.66\% | 0.0281\% |
| Joy Global Inc | JOY | 6163.29 | 0.05\% | 1.21\% | 18.50\% | 19.82\% | 0.0094\% |
| JPMorgan Chase \& Co | JPM | 145758.17 | 1.12\% | 3.10\% | 7.33\% | 10.55\% | 0.1183\% |
| Juniper Networks Inc | JNPR | 9636.56 | 0.07\% | 0.00\% | 15.00\% | 15.00\% | 0.0111\% |
| Kellogg Co | K | 18484.18 | 0.14\% | 3.35\% | 8.16\% | 11.65\% | 0.0166\% |
| KeyCorp | KEY | 7906.22 | 0.06\% | 2.16\% | 7.01\% | 9.24\% | 0.0056\% |
| Kimberly-Clark Corp | KMB | 33336.70 | 0.26\% | 3.49\% | 8.44\% | 12.08\% | 0.0310\% |
| Kimco Realty Corp | KIM | 8289.67 | 0.06\% | 3.75\% | 11.52\% | 15.48\% | 0.0099\% |
| Kinder Morgan Inc/Delaware | KMI | 39556.55 | 0.30\% | 4.02\% | 7.00\% | 11.16\% | 0.0340\% |
| KLA-Tencor Corp | KLAC | 8987.18 | 0.07\% | 2.80\% | 9.67\% | 12.61\% | 0.0087\% |
| Kohl's Corp | KSS | 12380.22 | 0.10\% | 2.48\% | 12.83\% | 15.47\% | 0.0147\% |
| Kraft Foods Inc | KFT | 72929.20 | 0.56\% | 2.87\% | 7.75\% | 10.73\% | 0.0602\% |
| Kroger Co/The | KR | 12053.78 | 0.09\% | 2.16\% | 9.46\% | 11.73\% | 0.0109\% |
| L-3 Communications Holdings Inc | LLL | 6745.26 | 0.05\% | 2.79\% | 1.67\% | 4.48\% | 0.0023\% |
| Laboratory Corp of America Holdings | LH | 8544.69 | 0.07\% | 0.00\% | 12.25\% | 12.25\% | 0.0081\% |
| Lam Research Corp | LRCX | 7083.12 | 0.05\% | 0.00\% | 10.00\% | 10.00\% | 0.0055\% |
| Legg Mason Inc | LM | 3504.73 | 0.03\% | 1.72\% | 11.00\% | 12.82\% | 0.0035\% |
| Leggett \& Platt Inc | LEG | 3332.09 | 0.03\% | 4.73\% | 15.00\% | 20.08\% | 0.0051\% |
| Lennar Corp | LEN | 5776.81 | 0.04\% | 0.50\% | 4.50\% | 5.01\% | 0.0022\% |
| Leucadia National Corp | LUK | 5512.89 | N/A | 0.00\% | N/A | N/A | N/A |
| Lexmark International Inc | LXK | 1474.63 | 0.01\% | 5.55\% | -9.00\% | -3.70\% | -0.0004\% |
| Life Technologies Corp | LIFE | 8168.76 | 0.06\% | 0.00\% | 8.73\% | 8.73\% | 0.0055\% |
| Lincoln National Corp | LNC | 6778.34 | 0.05\% | 1.35\% | 5.40\% | 6.79\% | 0.0035\% |
| Linear Technology Corp | LLTC | 7583.02 | 0.06\% | 3.09\% | 10.00\% | 13.24\% | 0.0077\% |
| Lockheed Martin Corp | LMT | 30375.09 | 0.23\% | 4.38\% | 6.88\% | 11.40\% | 0.0267\% |
| Loews Corp | L | 16061.22 | N/A | 0.62\% | N/A | N/A | N/A |
| Lorillard Inc | LO | 16821.81 | 0.13\% | 4.73\% | 9.51\% | 14.46\% | 0.0187\% |
| Lowe's Cos Inc | LOW | 30297.60 | 0.23\% | 2.40\% | 16.60\% | 19.19\% | 0.0448\% |
| LSI Corp | LSI | 4337.83 | 0.03\% | 0.00\% | 15.25\% | 15.25\% | 0.0051\% |
| Ltd Brands Inc | LTD | 13970.79 | 0.11\% | 4.18\% | 12.54\% | 16.99\% | 0.0183\% |
| M\&T Bank Corp | MTB | 11091.43 | 0.09\% | 3.20\% | 15.58\% | 19.03\% | 0.0162\% |
| Macy's Inc | M | 15990.06 | 0.12\% | 2.02\% | 10.27\% | 12.39\% | 0.0153\% |
| Marathon Oil Corp | MRO | 19230.09 | 0.15\% | 2.49\% | -0.42\% | 2.06\% | 0.0031\% |
| Marathon Petroleum Corp | MPC | 16749.08 | 0.13\% | 2.51\% | 11.00\% | 13.65\% | 0.0176\% |
| Marriott International Inc/DE | MAR | 12396.16 | 0.10\% | 1.18\% | 19.01\% | 20.31\% | 0.0194\% |
| Marsh \& McLennan Cos Inc | MMC | 18497.21 | 0.14\% | 2.65\% | 8.08\% | 10.83\% | 0.0154\% |
| Masco Corp | MAS | 4938.69 | 0.04\% | 2.18\% | 10.00\% | 12.29\% | 0.0047\% |
| Mastercard Inc | MA | 53095.45 | 0.41\% | 0.23\% | 17.97\% | 18.22\% | 0.0744\% |
| Mattel Inc | MAT | 12140.49 | 0.09\% | 3.48\% | 9.00\% | 12.64\% | 0.0118\% |
| McCormick \& Co Inc/MD | MKC | 8041.97 | 0.06\% | 2.03\% | 9.50\% | 11.63\% | 0.0072\% |
| McDonald's Corp | MCD | 89387.35 | 0.69\% | 3.23\% | 9.96\% | 13.34\% | 0.0918\% |
| McGraw-Hill Cos Inc/The | MHP | 13527.48 | 0.10\% | 2.06\% | 9.50\% | 11.65\% | 0.0121\% |
| McKesson Corp | MCK | 20554.01 | 0.16\% | 0.74\% | 14.33\% | 15.13\% | 0.0239\% |
| Mead Johnson Nutrition Co | MJN | 14626.23 | 0.11\% | 1.67\% | 11.40\% | 13.16\% | 0.0148\% |
| MeadWestvaco Corp | MWV | 4991.30 | 0.04\% | 3.48\% | 10.00\% | 13.65\% | 0.0052\% |
| Medtronic Inc | MDT | 42385.60 | 0.33\% | 2.52\% | 7.57\% | 10.18\% | 0.0332\% |
| Merck \& Co Inc | MRK | 131845.42 | 1.01\% | 3.85\% | 4.50\% | 8.44\% | 0.0856\% |
| MetLife Inc | MET | 37911.72 | 0.29\% | 2.90\% | 9.50\% | 12.54\% | 0.0366\% |
| MetroPCS Communications Inc | PCS | 3670.59 | 0.03\% | 0.00\% | 14.76\% | 14.76\% | 0.0042\% |
| Microchip Technology Inc | MCHP | 6808.29 | 0.05\% | 4.01\% | 10.00\% | 14.21\% | 0.0074\% |
| Micron Technology Inc | MU | 6644.49 | 0.05\% | 0.00\% | 11.28\% | 11.28\% | 0.0058\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | $\begin{aligned} & \text { Long-Term Growth } \\ & \text { Est. } \end{aligned}$ | DCF Result | Weighted DCF Result |
| Microsoft Corp | MSFT | 258208.61 | 1.99\% | 2.71\% | 9.96\% | 12.80\% | 0.2544\% |
| Molex Inc | MOLX | 4816.69 | 0.04\% | 3.18\% | 11.67\% | 15.04\% | 0.0056\% |
| Molson Coors Brewing Co | TAP | 8015.00 | 0.06\% | 3.08\% | 3.34\% | 6.47\% | 0.0040\% |
| Monsanto Co | MON | 47112.79 | 0.36\% | 1.39\% | 9.65\% | 11.11\% | 0.0403\% |
| Monster Beverage Corp | MNST | 10709.24 | 0.08\% | 0.00\% | 17.50\% | 17.50\% | 0.0144\% |
| Moody's Corp | MCO | 8571.89 | 0.07\% | 1.66\% | 12.00\% | 13.76\% | 0.0091\% |
| Morgan Stanley | MS | 29790.65 | 0.23\% | 1.36\% | 11.00\% | 12.43\% | 0.0285\% |
| Mosaic Co/The | MOS | 25160.09 | 0.19\% | 1.69\% | 5.51\% | 7.25\% | 0.0140\% |
| Motorola Solutions Inc | MSI | 13822.88 | N/A | 2.17\% | N/A | N/A | N/A |
| Murphy Oil Corp | MUR | 10775.42 | 0.08\% | 2.12\% | 10.00\% | 12.22\% | 0.0101\% |
| Mylan Inc/PA | MYL | 9688.54 | 0.07\% | 0.00\% | 10.05\% | 10.05\% | 0.0075\% |
| Nabors Industries Ltd | NBR | 4744.91 | 0.04\% | 0.00\% | 8.00\% | 8.00\% | 0.0029\% |
| NASDAQ OMX Group Inc/The | NDAQ | 3975.35 | 0.03\% | 1.75\% | 9.00\% | 10.83\% | 0.0033\% |
| National Oilwell Varco Inc | NOV | 33512.52 | 0.26\% | 0.59\% | 18.00\% | 18.64\% | 0.0481\% |
| NetApp Inc | NTAP | 12200.02 | 0.09\% | 0.00\% | 14.25\% | 14.25\% | 0.0134\% |
| Netflix Inc | NFLX | 3620.28 | 0.03\% | 0.00\% | 11.00\% | 11.00\% | 0.0031\% |
| Newell Rubbermaid Inc | NWL | 5145.06 | 0.04\% | 2.09\% | 9.01\% | 11.19\% | 0.0044\% |
| Newfield Exploration Co | NFX | 4347.81 | 0.03\% | 0.00\% | 11.50\% | 11.50\% | 0.0038\% |
| Newmont Mining Corp | NEM | 24194.97 | 0.19\% | 3.10\% | -3.00\% | 0.05\% | 0.0001\% |
| News Corp | NWSA | 55650.23 | 0.43\% | 0.81\% | 16.43\% | 17.31\% | 0.0741\% |
| NextEra Energy Inc | NEE | 29064.60 | 0.22\% | 3.47\% | 5.13\% | 8.69\% | 0.0194\% |
| NIKE Inc | NKE | 44090.42 | 0.34\% | 1.59\% | 13.83\% | 15.53\% | 0.0527\% |
| NiSource Inc | NI | 6983.04 | N/A | 3.85\% | N/A | N/A | N/A |
| Noble Corp | NE | 9722.73 | 0.07\% | 1.36\% | 13.00\% | 14.44\% | 0.0108\% |
| Noble Energy Inc | NBL | 15766.21 | 0.12\% | 0.98\% | 7.00\% | 8.01\% | 0.0097\% |
| Nordstrom Inc | JWN | 11781.71 | 0.09\% | 1.80\% | 12.59\% | 14.50\% | 0.0131\% |
| Norfolk Southern Corp | NSC | 24053.22 | 0.19\% | 2.54\% | 14.67\% | 17.39\% | 0.0322\% |
| Northeast Utilities | NU | 12072.06 | 0.09\% | 3.39\% | 6.71\% | 10.22\% | 0.0095\% |
| Northern Trust Corp | NTRS | 11414.94 | 0.09\% | 2.59\% | 8.74\% | 11.44\% | 0.0101\% |
| Northrop Grumman Corp | NOC | 17262.69 | 0.13\% | 3.05\% | 3.75\% | 6.86\% | 0.0091\% |
| NRG Energy Inc | NRG | 5035.38 | 0.04\% | 0.51\% | -6.84\% | -6.35\% | -0.0025\% |
| Nucor Corp | NUE | 12949.12 | 0.10\% | 3.57\% | 8.50\% | 12.23\% | 0.0122\% |
| NVIDIA Corp | NVDA | 9046.92 | 0.07\% | 0.00\% | 15.60\% | 15.60\% | 0.0109\% |
| NYSE Euronext | NYX | 6445.20 | 0.05\% | 4.58\% | 8.50\% | 13.27\% | 0.0066\% |
| O'Reilly Automotive Inc | ORLY | 10228.06 | 0.08\% | 0.00\% | 18.25\% | 18.25\% | 0.0144\% |
| Occidental Petroleum Corp | OXY | 71842.33 | 0.55\% | 2.37\% | -1.92\% | 0.42\% | 0.0023\% |
| Omnicom Group Inc | OMC | 13899.79 | 0.11\% | 2.28\% | 8.00\% | 10.37\% | 0.0111\% |
| ONEOK Inc | OKE | 9202.92 | 0.07\% | 2.89\% | 16.00\% | 19.12\% | 0.0135\% |
| Oracle Corp | ORCL | 155751.94 | 1.20\% | 0.74\% | 13.31\% | 14.10\% | 0.1690\% |
| Owens-Illinois Inc | OI | 3098.35 | 0.02\% | 0.00\% | 8.67\% | 8.67\% | 0.0021\% |
| PACCAR Inc | PCAR | 14638.65 | 0.11\% | 3.38\% | 10.75\% | 14.31\% | 0.0161\% |
| Pall Corp | PLL | 6435.29 | 0.05\% | 1.39\% | 12.05\% | 13.53\% | 0.0067\% |
| Parker Hannifin Corp | PH | 12553.86 | 0.10\% | 2.04\% | 6.00\% | 8.10\% | 0.0078\% |
| Patterson Cos Inc | PDCO | 3985.50 | 0.03\% | 1.18\% | 11.75\% | 12.99\% | 0.0040\% |
| Paychex Inc | PAYX | 11972.85 | 0.09\% | 3.92\% | 10.33\% | 14.45\% | 0.0133\% |
| Peabody Energy Corp | BTU | 6448.03 | 0.05\% | 1.41\% | 12.00\% | 13.50\% | 0.0067\% |
| People's United Financial Inc | PBCT | 4260.78 | 0.03\% | 5.27\% | 7.67\% | 13.14\% | 0.0043\% |
| Pepco Holdings Inc | POM | 4435.81 | 0.03\% | 5.57\% | 6.00\% | 11.74\% | 0.0040\% |
| PepsiCo Inc | PEP | 113981.55 | 0.88\% | 2.90\% | 9.27\% | 12.30\% | 0.1079\% |
| PerkinElmer Inc | PKI | 3142.66 | 0.02\% | 1.02\% | 10.96\% | 12.03\% | 0.0029\% |
| Perrigo Co | PRGO | 10146.10 | 0.08\% | 0.27\% | 11.63\% | 11.91\% | 0.0093\% |
| Pfizer Inc | PFE | 177400.23 | 1.37\% | 3.67\% | 3.48\% | 7.21\% | 0.0985\% |
| PG\&E Corp | PCG | 18969.06 | 0.15\% | 4.11\% | 2.85\% | 7.01\% | 0.0102\% |
| Philip Morris International Inc | PM | 157696.38 | 1.21\% | 3.52\% | 10.33\% | 14.03\% | 0.1703\% |
| Phillips 66 | PSX | 26493.75 | 0.20\% | 0.95\% | 10.00\% | 10.99\% | 0.0224\% |
| Pinnacle West Capital Corp | PNW | 5766.39 | 0.04\% | 4.06\% | 5.00\% | 9.16\% | 0.0041\% |
| Pioneer Natural Resources Co | PXD | 12072.27 | N/A | 0.11\% | N/A | N/A | N/A |
| Pitney Bowes Inc | PBI | 2768.81 | N/A | 10.82\% | N/A | N/A | N/A |
| Plum Creek Timber Co Inc | PCL | 6591.76 | 0.05\% | 4.12\% | 5.00\% | 9.22\% | 0.0047\% |
| PNC Financial Services Group Inc | PNC | 33214.91 | 0.26\% | 2.48\% | 3.86\% | 6.39\% | 0.0163\% |
| PPG Industries Inc | PPG | 16519.32 | 0.13\% | 2.15\% | 7.00\% | 9.23\% | 0.0117\% |
| PPL Corp | PPL | 17108.48 | 0.13\% | 4.88\% | -8.00\% | -3.32\% | -0.0044\% |
| Praxair Inc | PX | 32133.94 | 0.25\% | 2.04\% | 11.66\% | 13.81\% | 0.0342\% |
| Precision Castparts Corp | PCP | 24031.86 | 0.18\% | 0.07\% | 12.63\% | 12.70\% | 0.0235\% |
| priceline.com Inc | PCLN | 29370.07 | 0.23\% | 0.00\% | 20.96\% | 20.96\% | 0.0474\% |
| Principal Financial Group Inc | PFG | 7929.86 | 0.06\% | 2.73\% | 11.50\% | 14.38\% | 0.0088\% |
| Procter \& Gamble Co/The | PG | 184701.64 | 1.42\% | 3.42\% | 7.52\% | 11.06\% | 0.1573\% |
| Progressive Corp/The | PGR | 12140.53 | 0.09\% | 1.65\% | 7.75\% | 9.46\% | 0.0088\% |
| Prologis Inc | PLD | 15524.85 | 0.12\% | 3.45\% | 3.08\% | 6.58\% | 0.0079\% |
| Prudential Financial Inc | PRU | 25769.80 | 0.20\% | 2.97\% | 11.00\% | 14.13\% | 0.0280\% |
| Public Service Enterprise Group Inc | PEG | 16468.20 | 0.13\% | 4.36\% | 0.30\% | 4.67\% | 0.0059\% |
| Public Storage | PSA | 25650.76 | 0.20\% | 3.09\% | 5.25\% | 8.42\% | 0.0166\% |
| PulteGroup Inc | PHM | 4992.65 | 0.04\% | 0.00\% | 5.00\% | 5.00\% | 0.0019\% |
| QEP Resources Inc | QEP | 4995.32 | 0.04\% | 0.27\% | 15.00\% | 15.29\% | 0.0059\% |
| QUALCOMM Inc | QCOM | 105897.20 | 0.82\% | 1.46\% | 15.50\% | 17.07\% | 0.1391\% |
| Quanta Services Inc | PWR | 5209.73 | 0.04\% | 0.00\% | 16.83\% | 16.83\% | 0.0067\% |
| Quest Diagnostics Inc | DGX | 9672.70 | 0.07\% | 1.07\% | 11.38\% | 12.50\% | 0.0093\% |
| Ralph Lauren Corp | RL | 14293.83 | 0.11\% | 0.83\% | 12.33\% | 13.21\% | 0.0145\% |
| Range Resources Corp | RRC | 11036.01 | 0.08\% | 0.24\% | 10.00\% | 10.25\% | 0.0087\% |


|  |  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Market Capitalization | Weight in Index | Estimated Dividend Yield | $\begin{aligned} & \text { Long-Term Growth } \\ & \text { Est. } \end{aligned}$ | DCF Result | Weighted DCF Result |
| Raytheon Co | RTN | 18772.36 | 0.14\% | 3.48\% | 7.75\% | 11.36\% | 0.0164\% |
| Red Hat Inc | RHT | 11236.06 | 0.09\% | 0.00\% | 17.00\% | 17.00\% | 0.0147\% |
| Regions Financial Corp | RF | 10063.01 | 0.08\% | 0.56\% | 8.00\% | 8.58\% | 0.0066\% |
| Republic Services Inc | RSG | 10304.45 | 0.08\% | 3.19\% | 6.60\% | 9.90\% | 0.0078\% |
| Reynolds American Inc | RAI | 26146.37 | 0.20\% | 5.04\% | 7.68\% | 12.91\% | 0.0260\% |
| Robert Half International Inc | RHI | 4103.79 | 0.03\% | 2.05\% | 12.67\% | 14.85\% | 0.0047\% |
| Rockwell Automation Inc | ROK | 10296.77 | 0.08\% | 2.37\% | 15.00\% | 17.55\% | 0.0139\% |
| Rockwell Collins Inc | COL | 7256.84 | 0.06\% | 2.09\% | 8.64\% | 10.82\% | 0.0060\% |
| Roper Industries Inc | ROP | 10265.04 | 0.08\% | 0.50\% | 14.00\% | 14.53\% | 0.0115\% |
| Ross Stores Inc | ROST | 15704.74 | 0.12\% | 0.79\% | 13.29\% | 14.13\% | 0.0171\% |
| Rowan Cos Plc | RDC | 4477.26 | 0.03\% | 0.00\% | 18.33\% | 18.33\% | 0.0063\% |
| RR Donnelley \& Sons Co | RRD | 2269.98 | 0.02\% | 8.26\% | 5.00\% | 13.47\% | 0.0024\% |
| Ryder System Inc | R | 2142.57 | 0.02\% | 2.99\% | 8.93\% | 12.06\% | 0.0020\% |
| Safeway Inc | SWY | 3841.58 | 0.03\% | 4.04\% | 10.19\% | 14.43\% | 0.0043\% |
| SAIC Inc | SAI | 4078.42 | 0.03\% | 4.02\% | 3.87\% | 7.96\% | 0.0025\% |
| Salesforce.com Inc | CRM | 20630.66 | 0.16\% | 0.00\% | 25.78\% | 25.78\% | 0.0409\% |
| SanDisk Corp | SNDK | 10415.40 | 0.08\% | 0.00\% | 13.43\% | 13.43\% | 0.0108\% |
| SCANA Corp | SCG | 6381.15 | 0.05\% | 4.07\% | 4.34\% | 8.50\% | 0.0042\% |
| Schlumberger Ltd | SLB | 99129.00 | 0.76\% | 1.45\% | 18.00\% | 19.58\% | 0.1494\% |
| Scripps Networks Interactive Inc | SNI | 8667.98 | 0.07\% | 0.81\% | 15.64\% | 16.51\% | 0.0110\% |
| Seagate Technology PLC | STX | 13654.11 | 0.11\% | 3.51\% | 7.77\% | 11.42\% | 0.0120\% |
| Sealed Air Corp | SEE | 2615.34 | 0.02\% | 3.79\% | 7.00\% | 10.92\% | 0.0022\% |
| Sears Holdings Corp | SHLD | 6055.15 | N/A | 0.00\% | N/A | N/A | N/A |
| Sempra Energy | SRE | 16541.92 | 0.13\% | 3.25\% | 7.00\% | 10.36\% | 0.0132\% |
| Sherwin-Williams Co/The | SHW | 14156.07 | 0.11\% | 1.12\% | 18.97\% | 20.20\% | 0.0220\% |
| Sigma-Aldrich Corp | SIAL | 8630.76 | 0.07\% | 1.12\% | 6.78\% | 7.93\% | 0.0053\% |
| Simon Property Group Inc | SPG | 48852.89 | 0.38\% | 2.59\% | 5.23\% | 7.89\% | 0.0296\% |
| SLM Corp | SLM | 7379.00 | N/A | 3.18\% | N/A | N/A | N/A |
| Snap-on Inc | SNA | 4077.63 | 0.03\% | 0.00\% | 10.00\% | 10.00\% | 0.0031\% |
| Southern Co/The | SO | 40161.93 | 0.31\% | 4.25\% | 5.67\% | 10.03\% | 0.0310\% |
| Southwest Airlines Co | LUV | 7036.88 | 0.05\% | 0.23\% | 19.25\% | 19.50\% | 0.0106\% |
| Southwestern Energy Co | SWN | 11370.99 | N/A | 0.00\% | N/A | N/A | N/A |
| Spectra Energy Corp | SE | 19063.82 | 0.15\% | 3.90\% | 5.00\% | 9.00\% | 0.0132\% |
| Sprint Nextel Corp | S | 15541.96 | 0.12\% | 0.00\% | 5.00\% | 5.00\% | 0.0060\% |
| St Jude Medical Inc | STJ | 12031.33 | 0.09\% | 2.28\% | 9.89\% | 12.28\% | 0.0114\% |
| Stanley Black \& Decker Inc | SWK | 11370.74 | 0.09\% | 2.65\% | 13.00\% | 15.83\% | 0.0139\% |
| Staples Inc | SPLS | 7669.90 | 0.06\% | 3.83\% | 8.23\% | 12.22\% | 0.0072\% |
| Starbucks Corp | SBUX | 36632.00 | 0.28\% | 1.44\% | 18.08\% | 19.65\% | 0.0554\% |
| Starwood Hotels \& Resorts Worldwide Inc | HOT | 10731.18 | 0.08\% | 1.04\% | 20.34\% | 21.49\% | 0.0178\% |
| State Street Corp | STT | 20151.17 | 0.16\% | 2.20\% | 7.40\% | 9.68\% | 0.0150\% |
| Stericycle Inc | SRCL | 7755.76 | 0.06\% | 0.00\% | 16.00\% | 16.00\% | 0.0096\% |
| Stryker Corp | SYK | 20863.56 | 0.16\% | 1.14\% | 10.73\% | 11.93\% | 0.0192\% |
| Sunoco Inc | SUN | 4913.04 | 0.04\% | 1.68\% | -2.09\% | -0.43\% | -0.0002\% |
| SunTrust Banks Inc | STI | 13758.27 | 0.11\% | 0.80\% | 7.67\% | 8.50\% | 0.0090\% |
| Symantec Corp | SYMC | 12646.08 | 0.10\% | 0.00\% | 7.67\% | 7.67\% | 0.0075\% |
| Sysco Corp | SYY | 17760.04 | 0.14\% | 3.72\% | 10.00\% | 13.90\% | 0.0190\% |
| T Rowe Price Group Inc | TROW | 15902.63 | 0.12\% | 2.17\% | 13.33\% | 15.65\% | 0.0192\% |
| Target Corp | TGT | 42416.36 | 0.33\% | 1.97\% | 12.58\% | 14.67\% | 0.0479\% |
| TE Connectivity Ltd | TEL | 15452.48 | 0.12\% | 2.16\% | 15.00\% | 17.32\% | 0.0206\% |
| TECO Energy Inc | TE | 3887.67 | 0.03\% | 4.91\% | 3.67\% | 8.67\% | 0.0026\% |
| Tenet Healthcare Corp | THC | 2158.73 | 0.02\% | 0.00\% | 11.20\% | 11.20\% | 0.0019\% |
| Teradata Corp | TDC | 12725.93 | 0.10\% | 0.00\% | 14.40\% | 14.40\% | 0.0141\% |
| Teradyne Inc | TER | 2969.59 | 0.02\% | 0.00\% | 11.75\% | 11.75\% | 0.0027\% |
| Tesoro Corp | TSO | 5513.54 | 0.04\% | 0.65\% | 29.10\% | 29.84\% | 0.0127\% |
| Texas Instruments Inc | TXN | 33825.54 | 0.26\% | 2.28\% | 9.50\% | 11.89\% | 0.0310\% |
| Textron Inc | TXT | 7734.31 | 0.06\% | 0.29\% | 31.29\% | 31.62\% | 0.0188\% |
| Thermo Fisher Scientific Inc | TMO | 20807.22 | 0.16\% | 0.79\% | 10.84\% | 11.67\% | 0.0187\% |
| Tiffany \& Co | TIF | 7532.58 | 0.06\% | 2.09\% | 13.37\% | 15.60\% | 0.0090\% |
| Time Warner Cable Inc | TWC | 27545.32 | 0.21\% | 2.49\% | 11.61\% | 14.24\% | 0.0302\% |
| Time Warner Inc | TWX | 40462.11 | 0.31\% | 2.42\% | 12.99\% | 15.57\% | 0.0485\% |
| Titanium Metals Corp | TIE | 2286.31 | 0.02\% | 2.03\% | 15.00\% | 17.18\% | 0.0030\% |
| TJX Cos Inc | TJX | 33920.79 | 0.26\% | 1.00\% | 11.89\% | 12.95\% | 0.0338\% |
| Torchmark Corp | TMK | 4876.78 | 0.04\% | 1.12\% | 9.00\% | 10.17\% | 0.0038\% |
| Total System Services Inc | TSS | 4406.46 | 0.03\% | 1.66\% | 9.71\% | 11.45\% | 0.0039\% |
| Travelers Cos Inc/The | TRV | 25098.37 | 0.19\% | 2.79\% | 7.75\% | 10.64\% | 0.0206\% |
| TripAdvisor Inc | TRIP | 4923.27 | 0.04\% | 0.00\% | 16.80\% | 16.80\% | 0.0064\% |
| Tyco International Ltd | TYC | 26314.06 | 0.20\% | 1.81\% | 13.00\% | 14.93\% | 0.0302\% |
| Tyson Foods Inc | TSN | 5599.21 | 0.04\% | 1.07\% | 7.33\% | 8.45\% | 0.0036\% |
| Union Pacific Corp | UNP | 59276.74 | 0.46\% | 1.94\% | 13.00\% | 15.07\% | 0.0688\% |
| United Parcel Service Inc | UPS | 73547.15 | 0.57\% | 2.97\% | 9.10\% | 12.21\% | 0.0691\% |
| United States Steel Corp | X | 3351.59 | 0.03\% | 0.86\% | 6.50\% | 7.39\% | 0.0019\% |
| United Technologies Corp | UTX | 72879.16 | 0.56\% | 2.50\% | 10.63\% | 13.26\% | 0.0744\% |
| UnitedHealth Group Inc | UNH | 55600.88 | 0.43\% | 1.40\% | 11.00\% | 12.48\% | 0.0534\% |
| Unum Group | UNM | 5527.20 | 0.04\% | 2.34\% | 9.50\% | 11.95\% | 0.0051\% |
| Urban Outfitters Inc | URBN | 5347.80 | 0.04\% | 0.00\% | 19.76\% | 19.76\% | 0.0081\% |
| US Bancorp | USB | 63113.45 | 0.49\% | 2.33\% | 14.14\% | 16.63\% | 0.0808\% |
| Valero Energy Corp | VLO | 16652.98 | 0.13\% | 2.10\% | 6.13\% | 8.29\% | 0.0106\% |
| Varian Medical Systems Inc | VAR | 6699.38 | 0.05\% | 0.00\% | 12.67\% | 12.67\% | 0.0065\% |
| Ventas Inc | VTR | 18971.94 | 0.15\% | 3.87\% | 5.21\% | 9.18\% | 0.0134\% |



Notes:
[1] Equals sum of Col. [9]
[2] Source: Bloomberg Professional
[3] Equals [1] - [2]
[4] Source: Bloomberg Professional
[5] Equals weight in S\&P 500 based on market capitalization
[6] Source: Bloomberg Professional
[7] Source: Bloomberg Professional
[8] Equals $([6] \times(1+(0.5 \times[7])))+[7]$
[9] Equals Col. [5] x Col. [8]

Ex-Ante Market Risk Premium
Market DCF Method Based - Capital IQ

| $[1]$ | $[2]$ | $[3]$ |
| :---: | :---: | :---: |
| S\&P 500 | Current 30-Year |  |
| Est. Required | Treasury (30-day | Implied Market |
| Market Return | average) | Risk Premium |
| $13.07 \%$ | $2.65 \%$ | $10.43 \%$ |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| 3M Co. (NYSE:MMM) | 64,804.20 | 0.48\% | 2.52\% | 10.90\% | 13.56\% | 0.07\% |
| Abbott Laboratories (NYSE:ABT) | 104,250.90 | 0.78\% | 3.07\% | 8.73\% | 11.93\% | 0.09\% |
| Abercrombie \& Fitch Co. (NYSE:ANF) | 2,923.70 | 0.02\% | 1.98\% | 21.70\% | 23.89\% | 0.01\% |
| Accenture plc (NYSE:ACN) | 38,818.10 | 0.29\% | 2.21\% | 11.60\% | 13.94\% | 0.04\% |
| ACE Limited (NYSE:ACE) | 24,824.90 | 0.19\% | 2.68\% | 7.54\% | 10.32\% | 0.02\% |
| Adobe Systems Inc. (NasdaqGS:ADBE) | 16,547.80 | 0.12\% | 0.00\% | 10.00\% | 10.00\% | 0.01\% |
| Advanced Micro Devices, Inc. (NYSE:AMD) | 2,950.50 | 0.02\% | 0.00\% | 10.60\% | 10.60\% | 0.00\% |
| Aetna Inc. (NYSE:AET) | 12,756.40 | 0.10\% | 1.83\% | 11.10\% | 13.03\% | 0.01\% |
| AFLAC Inc. (NYSE:AFL) | 21,493.70 | 0.16\% | 2.88\% | 9.92\% | 12.94\% | 0.02\% |
| Agilent Technologies Inc. (NYSE:A) | 12,909.70 | 0.10\% | 1.08\% | 13.20\% | 14.35\% | 0.01\% |
| AGL Resources Inc. (NYSE:GAS) | 4,706.50 | 0.04\% | 4.59\% | 4.50\% | 9.19\% | 0.00\% |
| Air Products \& Chemicals Inc. (NYSE:APD) | 17,925.20 | 0.13\% | 3.02\% | 11.60\% | 14.80\% | 0.02\% |
| Airgas, Inc. (NYSE:ARG) | 6,473.80 | 0.05\% | 1.90\% | 14.00\% | 16.03\% | 0.01\% |
| Akamai Technologies, Inc. (NasdaqGS:AKAM) | 6,703.90 | 0.05\% | 0.00\% | 14.20\% | 14.20\% | 0.01\% |
| Alcoa, Inc. (NYSE:AA) | 9,356.60 | 0.07\% | 1.37\% | 7.10\% | 8.52\% | 0.01\% |
| Alexion Pharmaceuticals, Inc. (NasdaqGS:ALXN) | 20,002.80 | 0.15\% | 0.00\% | 30.40\% | 30.40\% | 0.05\% |
| Allegheny Technologies Inc. (NYSE:ATI) | 3,479.90 | 0.03\% | 2.22\% | 15.00\% | 17.39\% | 0.00\% |
| Allergan Inc. (NYSE:AGN) | 26,598.70 | 0.20\% | 0.23\% | 13.00\% | 13.25\% | 0.03\% |
| Alpha Natural Resources, Inc. (NYSE:ANR) | 1,447.10 | 0.01\% | 0.00\% | 5.00\% | 5.00\% | 0.00\% |
| Altera Corp. (NasdaqGS:ALTR) | 11,737.90 | 0.09\% | 1.09\% | 14.70\% | 15.87\% | 0.01\% |
| Altria Group Inc. (NYSE:MO) | 72,074.70 | 0.54\% | 4.63\% | 7.91\% | 12.72\% | 0.07\% |
| Amazon.com Inc. (NasdaqGS:AMZN) | 109,196.30 | 0.82\% | 0.00\% | 37.90\% | 37.90\% | 0.31\% |
| Ameren Corporation (NYSE:AEE) | 8,205.90 | 0.06\% | 4.73\% | -4.05\% | 0.58\% | 0.00\% |
| American Electric Power Co., Inc. (NYSE:AEP) | 20,972.10 | 0.16\% | 4.35\% | 3.49\% | 7.92\% | 0.01\% |
| American Express Company (NYSE:AXP) | 65,037.40 | 0.49\% | 1.39\% | 12.00\% | 13.47\% | 0.07\% |
| American International Group, Inc. (NYSE:AIG) | 56,418.40 | 0.42\% | 0.00\% | 16.50\% | 16.50\% | 0.07\% |
| American Tower Corporation (NYSE:AMT) | 28,076.00 | 0.21\% | 1.24\% | 17.00\% | 18.35\% | 0.04\% |
| Ameriprise Financial Inc. (NYSE:AMP) | 11,577.50 | 0.09\% | 2.55\% | 14.00\% | 16.73\% | 0.01\% |
| AmerisourceBergen Corporation (NYSE:ABC) | 9,456.50 | 0.07\% | 1.38\% | 11.80\% | 13.26\% | 0.01\% |
| Amgen Inc. (NasdaqGS:AMGN) | 64,050.90 | 0.48\% | 1.73\% | 10.40\% | 12.22\% | 0.06\% |
| Amphenol Corporation (NYSE:APH) | 10,034.30 | 0.07\% | 0.67\% | 14.30\% | 15.02\% | 0.01\% |
| Anadarko Petroleum Corporation (NYSE:APC) | 35,462.20 | 0.26\% | 0.51\% | 5.28\% | 5.80\% | 0.02\% |
| Analog Devices, Inc. (NasdaqGS:ADI) | 12,187.10 | 0.09\% | 2.94\% | 11.30\% | 14.41\% | 0.01\% |
| Aon Corporation (NYSE:AON) | 17,103.70 | 0.13\% | 1.19\% | 9.18\% | 10.42\% | 0.01\% |
| Apache Corp. (NYSE:APA) | 34,673.40 | 0.26\% | 0.77\% | 3.79\% | 4.57\% | 0.01\% |
| Apartment Investment \& Management Co. (NYSE:AIV) | 3,814.70 | 0.03\% | 3.05\% | 8.87\% | 12.06\% | 0.00\% |
| Apollo Group Inc. (NasdaqGS:APOL) | 3,253.90 | 0.02\% | 0.00\% | 12.80\% | 12.80\% | 0.00\% |
| Apple Inc. (NasdaqGS:AAPL) | 596,508.90 | 4.46\% | 1.67\% | 23.00\% | 24.86\% | 1.11\% |
| Applied Materials Inc. (NasdaqGS:AMAT) | 15,354.90 | 0.11\% | 3.01\% | 8.67\% | 11.81\% | 0.01\% |
| Archer Daniels Midland Company (NYSE:ADM) | 17,332.40 | 0.13\% | 2.66\% | 10.00\% | 12.79\% | 0.02\% |
| Assurant Inc. (NYSE:AIZ) | 2,790.90 | 0.02\% | 2.44\% | 8.50\% | 11.04\% | 0.00\% |
| AT\&T, Inc. (NYSE:T) | 214,837.60 | 1.60\% | 4.73\% | 6.82\% | 11.71\% | 0.19\% |
| Autodesk, Inc. (NasdaqGS:ADSK) | 7,967.20 | 0.06\% | 0.00\% | 12.40\% | 12.40\% | 0.01\% |
| Automatic Data Processing, Inc. (NasdaqGS:ADP) | 28,577.20 | 0.21\% | 2.70\% | 9.74\% | 12.57\% | 0.03\% |
| AutoNation Inc. (NYSE:AN) | 4,813.40 | 0.04\% | 0.00\% | 16.50\% | 16.50\% | 0.01\% |
| AutoZone Inc. (NYSE:AZO) | 13,422.00 | 0.10\% | 0.00\% | 15.80\% | 15.80\% | 0.02\% |
| Avalonbay Communities Inc. (NYSE:AVB) | 13,643.00 | 0.10\% | 2.76\% | 11.60\% | 14.52\% | 0.01\% |
| Avery Dennison Corporation (NYSE:AVY) | 3,230.60 | 0.02\% | 3.39\% | 9.25\% | 12.80\% | 0.00\% |
| Avon Products Inc. (NYSE:AVP) | 6,874.20 | 0.05\% | 5.78\% | -5.10\% | 0.53\% | 0.00\% |
| Baker Hughes Incorporated (NYSE:BHI) | 20,799.90 | 0.16\% | 1.27\% | 20.70\% | 22.10\% | 0.03\% |
| Ball Corporation (NYSE:BLL) | 6,675.10 | 0.05\% | 0.93\% | 11.40\% | 12.38\% | 0.01\% |
| Bank of America Corporation (NYSE:BAC) | 85,461.20 | 0.64\% | 0.50\% | 7.50\% | 8.02\% | 0.05\% |
| Baxter International Inc. (NYSE:BAX) | 32,242.90 | 0.24\% | 3.05\% | 8.69\% | 11.87\% | 0.03\% |
| BB\&T Corporation (NYSE:BBT) | 22,218.30 | 0.17\% | 2.52\% | 10.50\% | 13.15\% | 0.02\% |
| Beam, Inc. (NYSE:BEAM) | 9,519.50 | 0.07\% | 1.36\% | 12.60\% | 14.05\% | 0.01\% |
| Becton, Dickinson and Company (NYSE:BDX) | 15,144.20 | 0.11\% | 2.37\% | 8.53\% | 11.00\% | 0.01\% |
| Bed Bath \& Beyond Inc. (NasdaqGS:BBBY) | 14,944.20 | 0.11\% | 0.00\% | 14.30\% | 14.30\% | 0.02\% |
| Bemis Company, Inc. (NYSE:BMS) | 3,154.20 | 0.02\% | 3.27\% | 7.15\% | 10.54\% | 0.00\% |
| Berkshire Hathaway Inc. (NYSE:BRK.A) | 211,025.80 | 1.58\% | 0.00\% | 8.60\% | 8.60\% | 0.14\% |
| Best Buy Co. Inc. (NYSE:BBY) | 6,937.40 | 0.05\% | 3.14\% | 7.30\% | 10.55\% | 0.01\% |
| Big Lots Inc. (NYSE:BIG) | 2,448.10 | 0.02\% | 0.00\% | 11.70\% | 11.70\% | 0.00\% |
| Biogen Idec Inc. (NasdaqGS:BIIB) | 34,705.20 | 0.26\% | 0.00\% | 15.20\% | 15.20\% | 0.04\% |
| BlackRock, Inc. (NYSE:BLK) | 30,641.50 | 0.23\% | 3.39\% | 12.40\% | 16.00\% | 0.04\% |
| BMC Software Inc. (NasdaqGS:BMC) | 6,761.30 | 0.05\% | 0.00\% | 9.53\% | 9.53\% | 0.00\% |
| BorgWarner Inc. (NYSE:BWA) | 8,166.50 | 0.06\% | 0.00\% | 19.70\% | 19.70\% | 0.01\% |
| Boston Properties Inc. (NYSE:BXP) | 16,883.90 | 0.13\% | 1.96\% | 6.40\% | 8.42\% | 0.01\% |
| Boston Scientific Corporation (NYSE:BSX) | 7,818.60 | 0.06\% | 0.00\% | 6.57\% | 6.57\% | 0.00\% |
| Bristol-Myers Squibb Company (NYSE:BMY) | 53,594.40 | 0.40\% | 4.26\% | 4.40\% | 8.75\% | 0.04\% |
| Broadcom Corp. (NasdaqGS:BRCM) | 20,135.20 | 0.15\% | 1.11\% | 14.10\% | 15.29\% | 0.02\% |
| Brown-Forman Corporation (NYSE:BF.B) | 13,037.50 | 0.10\% | 1.00\% | 9.15\% | 10.20\% | 0.01\% |
| CA Technologies (NasdaqGS:CA) | 12,091.90 | 0.09\% | 3.88\% | 9.67\% | 13.74\% | 0.01\% |
| Cablevision Systems Corporation (NYSE:CVC) | 4,012.00 | 0.03\% | 3.98\% | 13.70\% | 17.95\% | 0.01\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| Cabot Oil \& Gas Corporation (NYSE:COG) | 9,092.50 | 0.07\% | 0.19\% | 35.00\% | 35.22\% | 0.02\% |
| Cameron International Corporation (NYSE:CAM) | 13,094.60 | 0.10\% | 0.00\% | 18.90\% | 18.90\% | 0.02\% |
| Campbell Soup Co. (NYSE:CPB) | 10,996.80 | 0.08\% | 3.33\% | 4.46\% | 7.86\% | 0.01\% |
| Capital One Financial Corp. (NYSE:COF) | 25,595.10 | 0.19\% | 0.36\% | 9.56\% | 9.93\% | 0.02\% |
| Cardinal Health, Inc. (NYSE:CAH) | 13,675.40 | 0.10\% | 2.38\% | 10.90\% | 13.41\% | 0.01\% |
| CareFusion Corporation (NYSE:CFN) | 5,969.50 | 0.04\% | 0.00\% | 10.20\% | 10.20\% | 0.00\% |
| CarMax Inc. (NYSE:KMX) | 6,795.70 | 0.05\% | 0.00\% | 13.30\% | 13.30\% | 0.01\% |
| Carnival Corporation (NYSE:CCL) | 26,471.00 | 0.20\% | 2.94\% | 12.50\% | 15.62\% | 0.03\% |
| Caterpillar Inc. (NYSE:CAT) | 57,873.10 | 0.43\% | 2.35\% | 16.30\% | 18.84\% | 0.08\% |
| CBRE Group, Inc (NYSE:CBG) | 5,870.10 | 0.04\% | 0.00\% | 13.20\% | 13.20\% | 0.01\% |
| CBS Corporation (NYSE:CBS) | 23,087.90 | 0.17\% | 1.11\% | 12.80\% | 13.98\% | 0.02\% |
| Celgene Corporation (NasdaqGS:CELG) | 30,303.20 | 0.23\% | 0.00\% | 22.20\% | 22.20\% | 0.05\% |
| CenterPoint Energy, Inc. (NYSE:CNP) | 8,727.20 | 0.07\% | 3.97\% | 5.22\% | 9.29\% | 0.01\% |
| CenturyLink, Inc. (NYSE:CTL) | 26,145.10 | 0.20\% | 6.91\% | 6.22\% | 13.34\% | 0.03\% |
| Cerner Corporation (NasdaqGS:CERN) | 12,624.40 | 0.09\% | 0.00\% | 19.20\% | 19.20\% | 0.02\% |
| CF Industries Holdings, Inc. (NYSE:CF) | 13,548.20 | 0.10\% | 0.74\% | 12.30\% | 13.09\% | 0.01\% |
| CH Robinson Worldwide Inc. (NasdaqGS:CHRW) | 9,150.80 | 0.07\% | 2.33\% | 14.60\% | 17.10\% | 0.01\% |
| Chesapeake Energy Corporation (NYSE:CHK) | 12,221.60 | 0.09\% | 1.84\% | 5.78\% | 7.67\% | 0.01\% |
| Chevron Corporation (NYSE:CVX) | 222,349.70 | 1.66\% | 3.18\% | -5.80\% | -2.71\% | -0.05\% |
| Chipotle Mexican Grill, Inc. (NYSE:CMG) | 9,498.30 | 0.07\% | 0.00\% | 22.20\% | 22.20\% | 0.02\% |
| Cigna Corp. (NYSE:CI) | 12,829.30 | 0.10\% | 0.09\% | 10.40\% | 10.49\% | 0.01\% |
| Cincinnati Financial Corp. (NasdaqGS:CINF) | 6,380.60 | 0.05\% | 4.10\% | 7.50\% | 11.75\% | 0.01\% |
| Cintas Corporation (NasdaqGS:CTAS) | 5,213.00 | 0.04\% | 1.31\% | 10.70\% | 12.08\% | 0.00\% |
| Cisco Systems, Inc. (NasdaqGS:CSCO) | 101,887.80 | 0.76\% | 1.68\% | 10.20\% | 11.97\% | 0.09\% |
| Citigroup, Inc. (NYSE:C) | 84,514.20 | 0.63\% | 0.14\% | 8.64\% | 8.79\% | 0.06\% |
| Citrix Systems, Inc. (NasdaqGS:CTXS) | 14,368.30 | 0.11\% | 0.00\% | 17.60\% | 17.60\% | 0.02\% |
| Cliffs Natural Resources Inc. (NYSE:CLF) | 6,044.60 | 0.05\% | 5.89\% | 8.33\% | 14.47\% | 0.01\% |
| CME Group Inc. (NasdaqGS:CME) | 17,772.20 | 0.13\% | 3.34\% | 10.00\% | 13.51\% | 0.02\% |
| CMS Energy Corp. (NYSE:CMS) | 6,178.30 | 0.05\% | 4.10\% | 6.02\% | 10.24\% | 0.00\% |
| Coach, Inc. (NYSE:COH) | 16,331.30 | 0.12\% | 2.11\% | 15.00\% | 17.27\% | 0.02\% |
| Coca-Cola Enterprises Inc. (NYSE:CCE) | 8,658.30 | 0.06\% | 2.18\% | 8.00\% | 10.27\% | 0.01\% |
| Cognizant Technology Solutions Corporation (NasdaqGS:CTSH) | 19,382.90 | 0.14\% | 0.00\% | 19.00\% | 19.00\% | 0.03\% |
| Colgate-Palmolive Co. (NYSE:CL) | 50,181.40 | 0.37\% | 2.34\% | 8.56\% | 11.00\% | 0.04\% |
| Comcast Corporation (NasdaqGS:CMCS.A) | 90,856.30 | 0.68\% | 1.90\% | 15.80\% | 17.85\% | 0.12\% |
| Comerica Incorporated (NYSE:CMA) | 5,975.20 | 0.04\% | 1.94\% | 9.60\% | 11.63\% | 0.01\% |
| Computer Sciences Corporation (NYSE:CSC) | 4,981.50 | 0.04\% | 2.49\% | 8.67\% | 11.27\% | 0.00\% |
| ConAgra Foods, Inc. (NYSE:CAG) | 10,013.70 | 0.07\% | 3.89\% | 7.00\% | 11.03\% | 0.01\% |
| ConocoPhillips (NYSE:COP) | 69,897.30 | 0.52\% | 4.59\% | -5.39\% | -0.92\% | 0.00\% |
| CONSOL Energy Inc. (NYSE:CNX) | 7,329.70 | 0.05\% | 1.55\% | 12.00\% | 13.64\% | 0.01\% |
| Consolidated Edison Inc. (NYSE:ED) | 18,100.70 | 0.14\% | 7.83\% | 3.34\% | 11.30\% | 0.02\% |
| Constellation Brands Inc. (NYSE:STZ) | 5,653.20 | 0.04\% | 0.00\% | 9.44\% | 9.44\% | 0.00\% |
| Cooper Industries plc (NYSE:CBE) | 11,845.00 | 0.09\% | 1.67\% | 13.00\% | 14.78\% | 0.01\% |
| Corning Inc. (NYSE:GLW) | 17,496.00 | 0.13\% | 2.55\% | 7.88\% | 10.53\% | 0.01\% |
| Costco Wholesale Corporation (NasdaqGS:COST) | 41,712.60 | 0.31\% | 1.14\% | 12.90\% | 14.11\% | 0.04\% |
| Coventry Health Care Inc. (NYSE:CVH) | 4,646.20 | 0.03\% | 1.44\% | 9.55\% | 11.06\% | 0.00\% |
| Covidien plc (NYSE:COV) | 27,648.80 | 0.21\% | 1.56\% | 9.78\% | 11.42\% | 0.02\% |
| CR Bard Inc. (NYSE:BCR) | 8,244.60 | 0.06\% | 0.81\% | 9.03\% | 9.88\% | 0.01\% |
| Crown Castle International Corp. (NYSE:CCI) | 18,199.00 | 0.14\% | 0.00\% | 31.10\% | 31.10\% | 0.04\% |
| CSX Corp. (NYSE:CSX) | 24,117.30 | 0.18\% | 2.41\% | 13.30\% | 15.87\% | 0.03\% |
| Cummins Inc. (NYSE:CMI) | 19,578.00 | 0.15\% | 1.95\% | 13.00\% | 15.08\% | 0.02\% |
| CVS Caremark Corporation (NYSE:CVS) | 56,932.60 | 0.43\% | 1.45\% | 12.10\% | 13.64\% | 0.06\% |
| Danaher Corp. (NYSE:DHR) | 37,125.00 | 0.28\% | 0.19\% | 15.10\% | 15.30\% | 0.04\% |
| Darden Restaurants, Inc. (NYSE:DRI) | 6,903.80 | 0.05\% | 3.71\% | 12.30\% | 16.24\% | 0.01\% |
| DaVita Inc. (NYSE:DVA) | 9,298.20 | 0.07\% | 0.00\% | 12.20\% | 12.20\% | 0.01\% |
| Dean Foods Company (NYSE:DF) | 3,027.70 | 0.02\% | 0.00\% | 17.90\% | 17.90\% | 0.00\% |
| Deere \& Company (NYSE:DE) | 30,033.00 | 0.22\% | 2.44\% | 13.30\% | 15.90\% | 0.04\% |
| Dell Inc. (NasdaqGS:DELL) | 21,474.70 | 0.16\% | 0.00\% | 7.92\% | 7.92\% | 0.01\% |
| Denbury Resources Inc. (NYSE:DNR) | 6,069.40 | 0.05\% | 0.00\% | 30.30\% | 30.30\% | 0.01\% |
| DENTSPLY International Inc. (NasdaqGS:XRAY) | 5,539.50 | 0.04\% | 0.56\% | 12.40\% | 13.00\% | 0.01\% |
| Devon Energy Corporation (NYSE:DVN) | 23,821.00 | 0.18\% | 1.36\% | -1.63\% | -0.28\% | 0.00\% |
| DeVry, Inc. (NYSE:DV) | 1,295.70 | 0.01\% | 1.50\% | 12.00\% | 13.59\% | 0.00\% |
| Diamond Offshore Drilling, Inc. (NYSE:DO) | 9,427.60 | 0.07\% | 5.16\% | 13.50\% | 19.01\% | 0.01\% |
| DIRECTV (NasdaqGS:DTV) | 32,334.50 | 0.24\% | 0.00\% | 18.60\% | 18.60\% | 0.04\% |
| Discover Financial Services (NYSE:DFS) | 19,468.80 | 0.15\% | 1.06\% | 10.70\% | 11.82\% | 0.02\% |
| Discovery Communications, Inc. (NasdaqGS:DISC.A) | 19,620.80 | 0.15\% | 0.00\% | 20.10\% | 20.10\% | 0.03\% |
| Dollar Tree, Inc. (NasdaqGS:DLTR) | 11,311.30 | 0.08\% | 0.00\% | 18.00\% | 18.00\% | 0.02\% |
| Dominion Resources, Inc. (NYSE:D) | 30,932.30 | 0.23\% | 3.91\% | 5.18\% | 9.19\% | 0.02\% |
| Dover Corporation (NYSE:DOV) | 10,637.50 | 0.08\% | 2.17\% | 13.60\% | 15.92\% | 0.01\% |
| DR Horton Inc. (NYSE:DHI) | 6,041.10 | 0.05\% | 0.79\% | 38.60\% | 39.55\% | 0.02\% |
| Dr Pepper Snapple Group, Inc. (NYSE:DPS) | 9,456.00 | 0.07\% | 3.03\% | 8.58\% | 11.74\% | 0.01\% |
| DTE Energy Co. (NYSE:DTE) | 10,372.30 | 0.08\% | 4.11\% | 4.65\% | 8.86\% | 0.01\% |
| Duke Energy Corporation (NYSE:DUK) | 46,958.10 | 0.35\% | 4.59\% | 4.00\% | 8.68\% | 0.03\% |
| Dun \& Bradstreet Corp. (NYSE:DNB) | 3,749.90 | 0.03\% | 1.82\% | 10.20\% | 12.11\% | 0.00\% |
| E*TRADE Financial Corporation (NasdaqGS:ETFC) | 2,439.40 | 0.02\% | 0.00\% | 18.30\% | 18.30\% | 0.00\% |
| E. I. du Pont de Nemours and Company (NYSE:DD) | 47,039.70 | 0.35\% | 3.40\% | 8.17\% | 11.71\% | 0.04\% |
| Eastman Chemical Co. (NYSE:EMN) | 8,382.20 | 0.06\% | 1.90\% | 7.67\% | 9.64\% | 0.01\% |
| Eaton Corporation (NYSE:ETN) | 15,546.50 | 0.12\% | 3.30\% | 12.70\% | 16.21\% | 0.02\% |
| eBay Inc. (NasdaqGS:EBAY) | 59,008.20 | 0.44\% | 0.00\% | 14.00\% | 14.00\% | 0.06\% |
| Ecolab Inc. (NYSE:ECL) | 19,531.00 | 0.15\% | 1.20\% | 15.20\% | 16.49\% | 0.02\% |
| Edison International (NYSE:EIX) | 14,684.30 | 0.11\% | 2.88\% | 1.49\% | 4.39\% | 0.00\% |
| Edwards Lifesciences Corp. (NYSE:EW) | 11,316.80 | 0.08\% | 0.00\% | 22.40\% | 22.40\% | 0.02\% |
| Electronic Arts Inc. (NasdaqGS:EA) | 4,397.00 | 0.03\% | 0.00\% | 18.60\% | 18.60\% | 0.01\% |
| Eli Lilly \& Co. (NYSE:LLY) | 47,358.10 | 0.35\% | 4.58\% | -6.45\% | -2.02\% | -0.01\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| EMC Corporation (NYSE:EMC) | 55,112.40 | 0.41\% | 0.00\% | 15.40\% | 15.40\% | 0.06\% |
| Emerson Electric Co. (NYSE:EMR) | 37,886.30 | 0.28\% | 3.07\% | 12.20\% | 15.46\% | 0.04\% |
| Ensco plc (NYSE:ESV) | 13,173.00 | 0.10\% | 2.64\% | 14.30\% | 17.13\% | 0.02\% |
| Entergy Corporation (NYSE:ETR) | 12,346.70 | 0.09\% | 4.77\% | 4.50\% | 9.38\% | 0.01\% |
| EOG Resources, Inc. (NYSE:EOG) | 29,970.00 | 0.22\% | 0.61\% | 16.00\% | 16.66\% | 0.04\% |
| EQT Corporation (NYSE:EQT) | 8,387.80 | 0.06\% | 1.57\% | 19.70\% | 21.42\% | 0.01\% |
| Equifax Inc. (NYSE:EFX) | 5,573.70 | 0.04\% | 1.55\% | 11.60\% | 13.24\% | 0.01\% |
| Equity Residential (NYSE:EQR) | 17,985.60 | 0.13\% | 2.26\% | 8.53\% | 10.89\% | 0.01\% |
| Estee Lauder Companies Inc. (NYSE:EL) | 23,825.40 | 0.18\% | 0.86\% | 14.90\% | 15.82\% | 0.03\% |
| Exelon Corporation (NYSE:EXC) | 31,991.90 | 0.24\% | 5.60\% | 1.72\% | 7.37\% | 0.02\% |
| Expedia Inc. (NasdaqGS:EXPE) | 7,088.40 | 0.05\% | 1.00\% | 13.30\% | 14.36\% | 0.01\% |
| Expeditors International of Washington Inc. (NasdaqGS:EXPD) | 8,065.90 | 0.06\% | 1.46\% | 11.30\% | 12.84\% | 0.01\% |
| Express Scripts Holding Company (NasdaqGS:ESRX) | 49,366.60 | 0.37\% | 0.00\% | 16.90\% | 16.90\% | 0.06\% |
| Exxon Mobil Corporation (NYSE:XOM) | 409,295.30 | 3.06\% | 2.57\% | 4.41\% | 7.04\% | 0.22\% |
| F5 Networks, Inc. (NasdaqGS:FFIV) | 8,222.90 | 0.06\% | 0.00\% | 20.80\% | 20.80\% | 0.01\% |
| Family Dollar Stores Inc. (NYSE:FDO) | 7,564.50 | 0.06\% | 1.30\% | 14.40\% | 15.79\% | 0.01\% |
| Fastenal Company (NasdaqGS:FAST) | 12,844.20 | 0.10\% | 1.75\% | 16.60\% | 18.50\% | 0.02\% |
| Federated Investors, Inc. (NYSE:FII) | 2,119.90 | 0.02\% | 4.72\% | 8.07\% | 12.98\% | 0.00\% |
| FedEx Corporation (NYSE:FDX) | 28,182.80 | 0.21\% | 0.62\% | 13.50\% | 14.17\% | 0.03\% |
| Fidelity National Information Services, Inc. (NYSE:FIS) | 9,103.50 | 0.07\% | 2.59\% | 11.60\% | 14.34\% | 0.01\% |
| Fifth Third Bancorp (NasdaqGS:FITB) | 13,168.00 | 0.10\% | 2.23\% | 7.16\% | 9.47\% | 0.01\% |
| First Horizon National Corporation (NYSE:FHN) | 2,149.70 | 0.02\% | 0.46\% | 11.60\% | 12.09\% | 0.00\% |
| First Solar, Inc. (NasdaqGS:FSLR) | 1,869.00 | 0.01\% | 0.00\% | -3.00\% | -3.00\% | 0.00\% |
| FirstEnergy Corp. (NYSE:FE) | 19,229.60 | 0.14\% | 4.78\% | 1.00\% | 5.80\% | 0.01\% |
| Fiserv, Inc. (NasdaqGS:FISV) | 9,698.40 | 0.07\% | 0.00\% | 11.80\% | 11.80\% | 0.01\% |
| FLIR Systems, Inc. (NasdaqGS:FLIR) | 3,144.90 | 0.02\% | 1.34\% | 9.44\% | 10.84\% | 0.00\% |
| Flowserve Corp. (NYSE:FLS) | 6,623.40 | 0.05\% | 1.11\% | 10.30\% | 11.47\% | 0.01\% |
| Fluor Corporation (NYSE:FLR) | 9,104.80 | 0.07\% | 1.17\% | 15.30\% | 16.56\% | 0.01\% |
| FMC Corp. (NYSE:FMC) | 7,632.10 | 0.06\% | 0.65\% | 10.70\% | 11.38\% | 0.01\% |
| FMC Technologies, Inc. (NYSE:FTI) | 11,390.00 | 0.09\% | 0.00\% | 20.70\% | 20.70\% | 0.02\% |
| Ford Motor Co. (NYSE:F) | 36,576.10 | 0.27\% | 2.09\% | 5.84\% | 7.99\% | 0.02\% |
| Forest Laboratories Inc. (NYSE:FRX) | 9,023.00 | 0.07\% | 0.00\% | 5.38\% | 5.38\% | 0.00\% |
| Fossil, Inc. (NasdaqGS:FOSL) | 5,341.30 | 0.04\% | 0.00\% | 20.30\% | 20.30\% | 0.01\% |
| Franklin Resources Inc. (NYSE:BEN) | 25,463.50 | 0.19\% | 0.90\% | 10.70\% | 11.65\% | 0.02\% |
| Freeport-McMoRan Copper \& Gold Inc. (NYSE:FCX) | 33,517.90 | 0.25\% | 3.54\% | 3.85\% | 7.46\% | 0.02\% |
| Frontier Communications Corporation (NasdaqGS:FTR) | 4,653.10 | 0.03\% | 8.58\% | 4.45\% | 13.22\% | 0.00\% |
| GameStop Corp. (NYSE:GME) | 2,238.50 | 0.02\% | 3.34\% | 9.40\% | 12.90\% | 0.00\% |
| Gannett Co., Inc. (NYSE:GCI) | 3,591.70 | 0.03\% | 5.15\% | 7.23\% | 12.57\% | 0.00\% |
| Gap Inc. (NYSE:GPS) | 16,799.70 | 0.13\% | 1.46\% | 10.40\% | 11.94\% | 0.01\% |
| General Dynamics Corp. (NYSE:GD) | 23,057.60 | 0.17\% | 3.12\% | 6.72\% | 9.94\% | 0.02\% |
| General Electric Company (NYSE:GE) | 222,263.70 | 1.66\% | 3.23\% | 12.70\% | 16.14\% | 0.27\% |
| General Mills, Inc. (NYSE:GIS) | 24,952.40 | 0.19\% | 3.43\% | 7.22\% | 10.77\% | 0.02\% |
| Genuine Parts Company (NYSE:GPC) | 9,929.60 | 0.07\% | 3.09\% | 8.23\% | 11.45\% | 0.01\% |
| Genworth Financial Inc. (NYSE:GNW) | 2,541.70 | 0.02\% | 0.00\% | 5.00\% | 5.00\% | 0.00\% |
| Gilead Sciences Inc. (NasdaqGS:GILD) | 42,887.60 | 0.32\% | 0.00\% | 18.40\% | 18.40\% | 0.06\% |
| Goodyear Tire \& Rubber Co. (NYSE:GT) | 2,880.50 | 0.02\% | 0.00\% | 46.30\% | 46.30\% | 0.01\% |
| Google Inc. (NasdaqGS:GOOG) | 220,050.90 | 1.64\% | 0.00\% | 16.80\% | 16.80\% | 0.28\% |
| H\&R Block, Inc. (NYSE:HRB) | 4,467.50 | 0.03\% | 4.85\% | 10.40\% | 15.50\% | 0.01\% |
| H. J. Heinz Company (NYSE:HNZ) | 17,787.40 | 0.13\% | 3.71\% | 6.98\% | 10.82\% | 0.01\% |
| Halliburton Company (NYSE:HAL) | 32,749.60 | 0.24\% | 1.02\% | 20.30\% | 21.42\% | 0.05\% |
| Harley-Davidson, Inc. (NYSE:HOG) | 9,693.20 | 0.07\% | 1.46\% | 13.50\% | 15.06\% | 0.01\% |
| Harman International Industries, Incorporated (NYSE:HAR) | 3,080.80 | 0.02\% | 1.31\% | 20.00\% | 21.44\% | 0.00\% |
| Harris Corp. (NYSE:HRS) | 5,233.80 | 0.04\% | 2.87\% | 3.30\% | 6.22\% | 0.00\% |
| Hasbro Inc. (NasdaqGS:HAS) | 4,980.00 | 0.04\% | 3.77\% | 8.87\% | 12.81\% | 0.00\% |
| HCP, Inc. (NYSE:HCP) | 19,453.10 | 0.15\% | 4.42\% | 5.49\% | 10.03\% | 0.01\% |
| Health Care REIT, Inc. (NYSE:HCN) | 13,640.00 | 0.10\% | 4.92\% | 6.39\% | 11.47\% | 0.01\% |
| Helmerich \& Payne Inc. (NYSE:HP) | 5,130.30 | 0.04\% | 0.58\% | 10.40\% | 11.01\% | 0.00\% |
| Hess Corporation (NYSE:HES) | 16,879.80 | 0.13\% | 0.80\% | 4.21\% | 5.03\% | 0.01\% |
| Hewlett-Packard Company (NYSE:HPQ) | 38,490.20 | 0.29\% | 2.70\% | 2.38\% | 5.11\% | 0.01\% |
| Honeywell International Inc. (NYSE:HON) | 45,866.20 | 0.34\% | 2.54\% | 12.90\% | 15.60\% | 0.05\% |
| Hormel Foods Corp. (NYSE:HRL) | 7,476.70 | 0.06\% | 2.11\% | 10.30\% | 12.52\% | 0.01\% |
| Hospira Inc. (NYSE:HSP) | 5,589.00 | 0.04\% | 0.00\% | 8.71\% | 8.71\% | 0.00\% |
| Host Hotels \& Resorts Inc. (NYSE:HST) | 11,294.00 | 0.08\% | 1.79\% | 14.50\% | 16.42\% | 0.01\% |
| Hudson City Bancorp, Inc. (NasdaqGS:HCBK) | 3,316.80 | 0.02\% | 4.79\% | -2.43\% | 2.30\% | 0.00\% |
| Humana Inc. (NYSE:HUM) | 10,985.10 | 0.08\% | 1.53\% | 9.11\% | 10.71\% | 0.01\% |
| Huntington Bancshares Incorporated (NasdaqGS:HBAN) | 5,553.90 | 0.04\% | 2.47\% | 6.08\% | 8.63\% | 0.00\% |
| Illinois Tool Works Inc. (NYSE:ITW) | 27,974.40 | 0.21\% | 2.41\% | 9.72\% | 12.25\% | 0.03\% |
| Ingersoll-Rand PIC (NYSE:IR) | 14,272.70 | 0.11\% | 1.38\% | 12.40\% | 13.87\% | 0.01\% |
| Integrys Energy Group, Inc. (NYSE:TEG) | 4,441.80 | 0.03\% | 4.77\% | 7.00\% | 11.94\% | 0.00\% |
| Intel Corporation (NasdaqGS:INTC) | 133,029.80 | 0.99\% | 3.38\% | 10.10\% | 13.65\% | 0.14\% |
| IntercontinentalExchange, Inc. (NYSE:ICE) | 9,868.70 | 0.07\% | 0.00\% | 12.20\% | 12.20\% | 0.01\% |
| International Business Machines Corporation (NYSE:IBM) | 229,514.90 | 1.71\% | 1.69\% | 11.20\% | 12.98\% | 0.22\% |
| International Flavors \& Fragrances Inc. (NYSE:IFF) | 5,072.70 | 0.04\% | 2.18\% | 5.85\% | 8.09\% | 0.00\% |
| International Game Technology (NYSE:IGT) | 3,151.80 | 0.02\% | 2.03\% | 12.40\% | 14.56\% | 0.00\% |
| International Paper Company (NYSE:IP) | 15,254.20 | 0.11\% | 3.01\% | 6.00\% | 9.10\% | 0.01\% |
| Intuit Inc. (NasdaqGS:INTU) | 17,640.70 | 0.13\% | 1.00\% | 15.10\% | 16.17\% | 0.02\% |
| Intuitive Surgical, Inc. (NasdaqGS:ISRG) | 20,564.00 | 0.15\% | 0.00\% | 20.40\% | 20.40\% | 0.03\% |
| Invesco Ltd. (NYSE:IVZ) | 10,712.10 | 0.08\% | 2.87\% | 10.70\% | 13.72\% | 0.01\% |
| Iron Mountain Inc. (NYSE:IRM) | 5,725.90 | 0.04\% | 3.24\% | 14.10\% | 17.57\% | 0.01\% |
| J. C. Penney Company, Inc. (NYSE:JCP) | 5,313.80 | 0.04\% | 0.00\% | 24.70\% | 24.70\% | 0.01\% |
| Jabil Circuit Inc. (NYSE:JBL) | 4,734.30 | 0.04\% | 1.39\% | 13.50\% | 14.98\% | 0.01\% |
| Jacobs Engineering Group Inc. (NYSE:JEC) | 5,303.80 | 0.04\% | 0.00\% | 14.70\% | 14.70\% | 0.01\% |
| JDS Uniphase Corporation (NasdaqGS:JDSU) | 2,740.40 | 0.02\% | 0.00\% | 12.00\% | 12.00\% | 0.00\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| Johnson \& Johnson (NYSE:JNJ) | 188,030.20 | 1.40\% | 3.58\% | 6.71\% | 10.41\% | 0.15\% |
| Johnson Controls Inc. (NYSE:JCI) | 18,465.50 | 0.14\% | 2.67\% | 16.50\% | 19.39\% | 0.03\% |
| Joy Global, Inc. (NYSE:JOY) | 5,925.10 | 0.04\% | 1.25\% | 17.30\% | 18.66\% | 0.01\% |
| JPMorgan Chase \& Co. (NYSE:JPM) | 141,227.30 | 1.05\% | 3.23\% | 5.70\% | 9.02\% | 0.10\% |
| Juniper Networks, Inc. (NYSE:JNPR) | 9,789.30 | 0.07\% | 0.00\% | 16.10\% | 16.10\% | 0.01\% |
| Kellogg Company (NYSE:K) | 18,283.80 | 0.14\% | 3.44\% | 7.45\% | 11.02\% | 0.02\% |
| KeyCorp (NYSE:KEY) | 7,859.00 | 0.06\% | 2.40\% | 5.49\% | 7.96\% | 0.00\% |
| Kimberly-Clark Corporation (NYSE:KMB) | 32,953.70 | 0.25\% | 3.55\% | 8.44\% | 12.14\% | 0.03\% |
| Kimco Realty Corporation (NYSE:KIM) | 8,167.60 | 0.06\% | 3.79\% | 8.03\% | 11.97\% | 0.01\% |
| Kinder Morgan, Inc. (NYSE:KMI) | 35,752.30 | 0.27\% | 4.06\% | 10.00\% | 14.26\% | 0.04\% |
| KLA-Tencor Corporation (NasdaqGS:KLAC) | 8,877.00 | 0.07\% | 3.00\% | 10.00\% | 13.15\% | 0.01\% |
| Kohl's Corp. (NYSE:KSS) | 12,315.50 | 0.09\% | 2.49\% | 13.70\% | 16.36\% | 0.02\% |
| Kraft Foods Inc. (NasdaqGS:KFT) | 72,228.20 | 0.54\% | 2.85\% | 9.28\% | 12.26\% | 0.07\% |
| L-3 Communications Holdings Inc. (NYSE:LLL) | 6,666.10 | 0.05\% | 2.90\% | 3.08\% | 6.02\% | 0.00\% |
| Laboratory Corp. of America Holdings (NYSE:LH) | 8,544.70 | 0.06\% | 0.00\% | 11.80\% | 11.80\% | 0.01\% |
| Lam Research Corporation (NasdaqGS:LRCX) | 7,174.00 | 0.05\% | 0.00\% | 10.00\% | 10.00\% | 0.01\% |
| Legg Mason Inc. (NYSE:LM) | 3,469.60 | 0.03\% | 1.71\% | 14.70\% | 16.54\% | 0.00\% |
| Leggett \& Platt, Incorporated (NYSE:LEG) | 3,322.30 | 0.02\% | 4.74\% | 15.00\% | 20.10\% | 0.00\% |
| Lennar Corp. (NYSE:LEN) | 5,932.30 | 0.04\% | 0.49\% | 8.00\% | 8.51\% | 0.00\% |
| Leucadia National Corp. (NYSE:LUK) | 5,434.60 | 0.04\% | 1.13\% | 0.00\% | 1.13\% | 0.00\% |
| Lexmark International Inc. (NYSE:LXK) | 1,393.70 | 0.01\% | 5.91\% | -11.50\% | -5.93\% | 0.00\% |
| Life Technologies Corporation (NasdaqGS:LIFE) | 8,293.20 | 0.06\% | 0.00\% | 9.44\% | 9.44\% | 0.01\% |
| Limited Brands, Inc. (NYSE:LTD) | 14,224.10 | 0.11\% | 8.19\% | 12.70\% | 21.41\% | 0.02\% |
| Lincoln National Corporation (NYSE:LNC) | 6,700.20 | 0.05\% | 1.33\% | 8.55\% | 9.94\% | 0.00\% |
| Linear Technology Corp. (NasdaqGS:LLTC) | 7,665.90 | 0.06\% | 3.00\% | 8.63\% | 11.76\% | 0.01\% |
| Lockheed Martin Corporation (NYSE:LMT) | 29,678.40 | 0.22\% | 4.35\% | 5.90\% | 10.38\% | 0.02\% |
| Loews Corporation (NYSE:L) | 16,029.60 | 0.12\% | 0.62\% | 0.00\% | 0.62\% | 0.00\% |
| Lorillard, Inc. (NYSE:LO) | 16,849.20 | 0.13\% | 4.81\% | 8.84\% | 13.86\% | 0.02\% |
| Lowe's Companies Inc. (NYSE:LOW) | 32,301.00 | 0.24\% | 2.33\% | 15.90\% | 18.42\% | 0.04\% |
| LSI Corporation (NYSE:LSI) | 4,354.60 | 0.03\% | 0.00\% | 16.20\% | 16.20\% | 0.01\% |
| M\&T Bank Corporation (NYSE:MTB) | 11,001.50 | 0.08\% | 3.22\% | 10.90\% | 14.30\% | 0.01\% |
| Macy's, Inc. (NYSE:M) | 16,005.40 | 0.12\% | 2.07\% | 12.50\% | 14.70\% | 0.02\% |
| Marathon Oil Corporation (NYSE:MRO) | 19,288.80 | 0.14\% | 2.49\% | -3.61\% | -1.16\% | 0.00\% |
| Marathon Petroleum Corporation (NYSE:MPC) | 16,816.70 | 0.13\% | 2.82\% | 10.70\% | 13.67\% | 0.02\% |
| Marriott International, Inc. (NYSE:MAR) | 12,204.00 | 0.09\% | 1.38\% | 19.30\% | 20.81\% | 0.02\% |
| Marsh \& McLennan Companies, Inc. (NYSE:MMC) | 18,589.70 | 0.14\% | 2.69\% | 11.20\% | 14.04\% | 0.02\% |
| Masco Corporation (NYSE:MAS) | 4,920.80 | 0.04\% | 2.18\% | 10.00\% | 12.29\% | 0.00\% |
| Mastercard Incorporated (NYSE:MA) | 53,478.60 | 0.40\% | 0.28\% | 18.30\% | 18.61\% | 0.07\% |
| Mattel, Inc. (NasdaqGS:MAT) | 12,160.90 | 0.09\% | 3.48\% | 8.60\% | 12.23\% | 0.01\% |
| McCormick \& Company, Incorporated (NYSE:MKC) | 7,934.50 | 0.06\% | 2.07\% | 9.08\% | 11.24\% | 0.01\% |
| McDonald's Corp. (NYSE:MCD) | 88,197.40 | 0.66\% | 3.20\% | 9.74\% | 13.10\% | 0.09\% |
| McKesson Corporation (NYSE:MCK) | 20,926.90 | 0.16\% | 0.90\% | 13.60\% | 14.56\% | 0.02\% |
| Mead Johnson Nutrition Company (NYSE:MJN) | 14,891.10 | 0.11\% | 1.64\% | 11.50\% | 13.23\% | 0.01\% |
| MeadWestvaco Corporation (NYSE:MWV) | 4,987.80 | 0.04\% | 3.48\% | 10.00\% | 13.65\% | 0.01\% |
| Medtronic, Inc. (NYSE:MDT) | 41,483.40 | 0.31\% | 2.57\% | 6.99\% | 9.65\% | 0.03\% |
| Merck \& Co. Inc. (NYSE:MRK) | 133,825.10 | 1.00\% | 3.82\% | 4.60\% | 8.51\% | 0.09\% |
| MetLife, Inc. (NYSE:MET) | 36,732.60 | 0.27\% | 2.14\% | 12.60\% | 14.87\% | 0.04\% |
| MetroPCS Communications, Inc. (NYSE:PCS) | 3,467.10 | 0.03\% | 0.00\% | 12.60\% | 12.60\% | 0.00\% |
| Microchip Technology Inc. (NasdaqGS:MCHP) | 6,897.40 | 0.05\% | 3.94\% | 9.00\% | 13.12\% | 0.01\% |
| Micron Technology Inc. (NasdaqGS:MU) | 6,725.90 | 0.05\% | 0.00\% | 11.70\% | 11.70\% | 0.01\% |
| Microsoft Corporation (NasdaqGS:MSFT) | 258,041.00 | 1.93\% | 2.60\% | 9.13\% | 11.85\% | 0.23\% |
| Molex Incorporated (NasdaqGS:MOLX) | 4,421.70 | 0.03\% | 3.24\% | 11.50\% | 14.93\% | 0.00\% |
| Molson Coors Brewing Company (NYSE:TAP) | 8,015.60 | 0.06\% | 2.89\% | 3.34\% | 6.28\% | 0.00\% |
| Monsanto Co. (NYSE:MON) | 47,070.10 | 0.35\% | 1.36\% | 14.60\% | 16.06\% | 0.06\% |
| Monster Beverage Corporation (NasdaqGS:MNST) | 10,631.60 | 0.08\% | 0.00\% | 18.70\% | 18.70\% | 0.01\% |
| Moody's Corp. (NYSE:MCO) | 8,718.60 | 0.07\% | 1.63\% | 14.40\% | 16.15\% | 0.01\% |
| Morgan Stanley (NYSE:MS) | 28,822.70 | 0.22\% | 1.37\% | 12.10\% | 13.55\% | 0.03\% |
| Motorola Solutions, Inc. (NYSE:MSI) | 13,791.40 | 0.10\% | 2.16\% | 18.90\% | 21.26\% | 0.02\% |
| Murphy Oil Corporation (NYSE:MUR) | 10,641.40 | 0.08\% | 2.28\% | 5.40\% | 7.74\% | 0.01\% |
| Mylan, Inc. (NasdaqGS:MYL) | 9,635.80 | 0.07\% | 0.00\% | 10.90\% | 10.90\% | 0.01\% |
| Nabors Industries Ltd. (NYSE:NBR) | 4,707.20 | 0.04\% | 0.00\% | 11.30\% | 11.30\% | 0.00\% |
| Nasdaq OMX Group Inc. (NasdaqGS:NDAQ) | 3,908.60 | 0.03\% | 2.22\% | 8.86\% | 11.18\% | 0.00\% |
| National Oilwell Varco, Inc. (NYSE:NOV) | 33,350.50 | 0.25\% | 0.61\% | 18.40\% | 19.07\% | 0.05\% |
| NetApp, Inc. (NasdaqGS:NTAP) | 12,100.00 | 0.09\% | 0.00\% | 13.90\% | 13.90\% | 0.01\% |
| Netflix, Inc. (NasdaqGS:NFLX) | 3,571.40 | 0.03\% | 0.00\% | 19.40\% | 19.40\% | 0.01\% |
| Newell Rubbermaid Inc. (NYSE:NWL) | 4,970.20 | 0.04\% | 2.32\% | 8.16\% | 10.57\% | 0.00\% |
| Newfield Exploration Co. (NYSE:NFX) | 4,359.80 | 0.03\% | 0.00\% | 6.35\% | 6.35\% | 0.00\% |
| Newmont Mining Corp. (NYSE:NEM) | 23,612.40 | 0.18\% | 2.94\% | -3.00\% | -0.10\% | 0.00\% |
| News Corp. (NasdaqGS:NWSA) | 55,686.40 | 0.42\% | 0.72\% | 17.10\% | 17.88\% | 0.07\% |
| NextEra Energy, Inc. (NYSE:NEE) | 29,415.50 | 0.22\% | 3.45\% | 5.85\% | 9.40\% | 0.02\% |
| Nike Inc. (NYSE:NKE) | 43,018.20 | 0.32\% | 1.52\% | 13.60\% | 15.22\% | 0.05\% |
| NiSource Inc. (NYSE:NI) | 7,071.40 | 0.05\% | 3.87\% | 8.00\% | 12.02\% | 0.01\% |
| Noble Corp. (NYSE:NE) | 9,725.30 | 0.07\% | 1.39\% | 10.10\% | 11.56\% | 0.01\% |
| Noble Energy, Inc. (NYSE:NBL) | 16,048.60 | 0.12\% | 0.97\% | 7.17\% | 8.17\% | 0.01\% |
| Nordstrom Inc. (NYSE:JWN) | 11,396.80 | 0.09\% | 1.91\% | 12.20\% | 14.23\% | 0.01\% |
| Norfolk Southern Corp. (NYSE:NSC) | 23,864.70 | 0.18\% | 2.68\% | 14.10\% | 16.97\% | 0.03\% |
| Northeast Utilities (NYSE:NU) | 12,166.20 | 0.09\% | 3.54\% | 6.08\% | 9.73\% | 0.01\% |
| Northern Trust Corporation (NasdaqGS:NTRS) | 11,347.60 | 0.08\% | 2.54\% | 12.70\% | 15.40\% | 0.01\% |
| Northrop Grumman Corporation (NYSE:NOC) | 17,005.60 | 0.13\% | 3.20\% | 1.25\% | 4.47\% | 0.01\% |
| NRG Energy, Inc. (NYSE:NRG) | 4,782.50 | 0.04\% | 1.72\% | 11.70\% | 13.52\% | 0.00\% |
| Nucor Corporation (NYSE:NUE) | 12,685.60 | 0.09\% | 3.65\% | 6.35\% | 10.12\% | 0.01\% |
| NVIDIA Corporation (NasdaqGS:NVDA) | 9,145.90 | 0.07\% | 0.00\% | 12.60\% | 12.60\% | 0.01\% |
| NYSE Euronext, Inc. (NYSE:NYX) | 6,307.40 | 0.05\% | 4.68\% | 7.99\% | 12.86\% | 0.01\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| O'Reilly Automotive Inc. (NasdaqGS:ORLY) | 10,368.30 | 0.08\% | 0.00\% | 16.70\% | 16.70\% | 0.01\% |
| Occidental Petroleum Corporation (NYSE:OXY) | 72,295.90 | 0.54\% | 2.42\% | -5.76\% | -3.41\% | -0.02\% |
| Omnicom Group Inc. (NYSE:OMC) | 13,711.20 | 0.10\% | 2.32\% | 9.97\% | 12.41\% | 0.01\% |
| ONEOK Inc. (NYSE:OKE) | 9,131.10 | 0.07\% | 2.96\% | 16.10\% | 19.30\% | 0.01\% |
| Oracle Corporation (NasdaqGS:ORCL) | 156,386.70 | 1.17\% | 0.75\% | 12.50\% | 13.30\% | 0.16\% |
| Owens-Illinois, Inc. (NYSE:OI) | 3,095.00 | 0.02\% | 0.00\% | 10.30\% | 10.30\% | 0.00\% |
| PACCAR Inc. (NasdaqGS:PCAR) | 14,748.20 | 0.11\% | 3.60\% | 16.90\% | 20.80\% | 0.02\% |
| Pall Corp. (NYSE:PLL) | 6,391.10 | 0.05\% | 1.53\% | 12.70\% | 14.33\% | 0.01\% |
| Parker Hannifin Corporation (NYSE:PH) | 12,558.40 | 0.09\% | 1.97\% | 5.00\% | 7.02\% | 0.01\% |
| Patterson Companies, Inc. (NasdaqGS:PDCO) | 3,906.80 | 0.03\% | 1.56\% | 10.60\% | 12.24\% | 0.00\% |
| Paychex, Inc. (NasdaqGS:PAYX) | 12,072.60 | 0.09\% | 3.85\% | 10.10\% | 14.14\% | 0.01\% |
| Peabody Energy Corp. (NYSE:BTU) | 6,002.60 | 0.04\% | 1.52\% | 11.50\% | 13.11\% | 0.01\% |
| People's United Financial Inc. (NasdaqGS:PBCT) | 4,131.60 | 0.03\% | 5.27\% | 10.30\% | 15.84\% | 0.00\% |
| Pepco Holdings, Inc. (NYSE:POM) | 4,442.70 | 0.03\% | 5.56\% | 6.63\% | 12.37\% | 0.00\% |
| Pepsico, Inc. (NYSE:PEP) | 114,510.70 | 0.86\% | 2.92\% | 5.43\% | 8.43\% | 0.07\% |
| PerkinElmer Inc. (NYSE:PKI) | 3,114.10 | 0.02\% | 1.03\% | 11.80\% | 12.89\% | 0.00\% |
| Perrigo Co. (NasdaqGS:PRGO) | 10,185.50 | 0.08\% | 0.29\% | 13.50\% | 13.81\% | 0.01\% |
| Pfizer Inc. (NYSE:PFE) | 179,417.00 | 1.34\% | 3.66\% | 2.79\% | 6.50\% | 0.09\% |
| PG\&E Corp. (NYSE:PCG) | 18,255.90 | 0.14\% | 4.11\% | 5.88\% | 10.11\% | 0.01\% |
| Philip Morris International, Inc. (NYSE:PM) | 157,261.00 | 1.17\% | 3.30\% | 10.50\% | 13.97\% | 0.16\% |
| Phillips 66 (NYSE:PSX) | 25,816.70 | 0.19\% | 1.94\% | 7.85\% | 9.87\% | 0.02\% |
| Pinnacle West Capital Corporation (NYSE:PNW) | 5,843.10 | 0.04\% | 3.94\% | 7.02\% | 11.10\% | 0.00\% |
| Pioneer Natural Resources Co. (NYSE:PXD) | 12,312.20 | 0.09\% | 0.08\% | 17.30\% | 17.39\% | 0.02\% |
| Pitney Bowes Inc. (NYSE:PBI) | 2,698.60 | 0.02\% | 11.20\% | 0.00\% | 11.20\% | 0.00\% |
| Plum Creek Timber Co. Inc. (NYSE:PCL) | 6,525.50 | 0.05\% | 4.16\% | 5.00\% | 9.26\% | 0.00\% |
| PNC Financial Services Group Inc. (NYSE:PNC) | 32,584.90 | 0.24\% | 2.60\% | 5.40\% | 8.07\% | 0.02\% |
| PPG Industries Inc. (NYSE:PPG) | 16,801.80 | 0.13\% | 2.14\% | 9.18\% | 11.42\% | 0.01\% |
| PPL Corporation (NYSE:PPL) | 17,131.70 | 0.13\% | 4.88\% | 5.83\% | 10.85\% | 0.01\% |
| Praxair Inc. (NYSE:PX) | 32,411.30 | 0.24\% | 2.02\% | 11.50\% | 13.64\% | 0.03\% |
| Precision Castparts Corp. (NYSE:PCP) | 23,533.30 | 0.18\% | 0.07\% | 14.20\% | 14.28\% | 0.03\% |
| priceline.com Incorporated (NasdaqGS:PCLN) | 29,236.80 | 0.22\% | 0.00\% | 20.70\% | 20.70\% | 0.05\% |
| Principal Financial Group Inc. (NYSE:PFG) | 7,882.60 | 0.06\% | 2.70\% | 14.10\% | 16.99\% | 0.01\% |
| Procter \& Gamble Co. (NYSE:PG) | 184,536.40 | 1.38\% | 3.36\% | 6.93\% | 10.41\% | 0.14\% |
| Progressive Corp. (NYSE:PGR) | 12,061.30 | 0.09\% | 2.06\% | 6.76\% | 8.89\% | 0.01\% |
| Prologis, Inc. (NYSE:PLD) | 15,543.30 | 0.12\% | 3.32\% | 8.11\% | 11.56\% | 0.01\% |
| Prudential Financial, Inc. (NYSE:PRU) | 25,308.50 | 0.19\% | 2.67\% | 12.00\% | 14.83\% | 0.03\% |
| Public Service Enterprise Group Inc. (NYSE:PEG) | 16,421.40 | 0.12\% | 4.37\% | 2.24\% | 6.66\% | 0.01\% |
| Public Storage (NYSE:PSA) | 24,870.10 | 0.19\% | 3.04\% | 5.47\% | 8.59\% | 0.02\% |
| PulteGroup, Inc. (NYSE:PHM) | 5,219.10 | 0.04\% | 0.00\% | 28.40\% | 28.40\% | 0.01\% |
| QEP Resources, Inc. (NYSE:QEP) | 4,718.00 | 0.04\% | 0.30\% | 7.20\% | 7.51\% | 0.00\% |
| QUALCOMM Incorporated (NasdaqGS:QCOM) | 106,578.50 | 0.80\% | 1.60\% | 15.10\% | 16.82\% | 0.13\% |
| Quanta Services, Inc. (NYSE:PWR) | 5,345.10 | 0.04\% | 0.00\% | 16.80\% | 16.80\% | 0.01\% |
| Quest Diagnostics Inc. (NYSE:DGX) | 9,525.10 | 0.07\% | 1.13\% | 11.20\% | 12.39\% | 0.01\% |
| R.R. Donnelley \& Sons Company (NasdaqGS:RRD) | 2,238.90 | 0.02\% | 8.37\% | 5.20\% | 13.79\% | 0.00\% |
| Ralph Lauren Corporation (NYSE:RL) | 13,891.80 | 0.10\% | 1.05\% | 14.50\% | 15.63\% | 0.02\% |
| Range Resources Corporation (NYSE:RRC) | 10,936.10 | 0.08\% | 0.23\% | -2.45\% | -2.22\% | 0.00\% |
| Raytheon Co. (NYSE:RTN) | 18,732.50 | 0.14\% | 3.54\% | 7.42\% | 11.09\% | 0.02\% |
| Red Hat, Inc. (NYSE:RHT) | 11,241.80 | 0.08\% | 0.00\% | 19.00\% | 19.00\% | 0.02\% |
| Regions Financial Corp. (NYSE:RF) | 10,091.30 | 0.08\% | 0.56\% | 7.60\% | 8.18\% | 0.01\% |
| Republic Services, Inc. (NYSE:RSG) | 10,556.50 | 0.08\% | 3.25\% | 8.40\% | 11.79\% | 0.01\% |
| Reynolds American Inc. (NYSE:RAI) | 26,395.20 | 0.20\% | 5.06\% | 7.34\% | 12.59\% | 0.02\% |
| Robert Half International Inc. (NYSE:RHI) | 4,112.30 | 0.03\% | 2.07\% | 17.40\% | 19.65\% | 0.01\% |
| Rockwell Automation Inc. (NYSE:ROK) | 10,284.10 | 0.08\% | 2.58\% | 13.00\% | 15.75\% | 0.01\% |
| Rockwell Collins Inc. (NYSE:COL) | 7,110.40 | 0.05\% | 2.40\% | 8.82\% | 11.33\% | 0.01\% |
| Roper Industries Inc. (NYSE:ROP) | 10,348.20 | 0.08\% | 0.52\% | 14.00\% | 14.56\% | 0.01\% |
| Ross Stores Inc. (NasdaqGS:ROST) | 15,443.10 | 0.12\% | 0.82\% | 14.30\% | 15.18\% | 0.02\% |
| Rowan Companies plc (NYSE:RDC) | 4,454.90 | 0.03\% | 0.00\% | 19.60\% | 19.60\% | 0.01\% |
| Ryder System, Inc. (NYSE:R) | 2,126.70 | 0.02\% | 2.98\% | 11.20\% | 14.35\% | 0.00\% |
| Safeway Inc. (NYSE:SWY) | 3,846.40 | 0.03\% | 4.36\% | 9.67\% | 14.24\% | 0.00\% |
| SAIC, Inc. (NYSE:SAI) | 4,088.70 | 0.03\% | 4.01\% | 5.50\% | 9.62\% | 0.00\% |
| salesforce.com, inc (NYSE:CRM) | 20,280.50 | 0.15\% | 0.00\% | 26.20\% | 26.20\% | 0.04\% |
| SanDisk Corp. (NasdaqGS:SNDK) | 10,314.00 | 0.08\% | 0.00\% | 12.50\% | 12.50\% | 0.01\% |
| SCANA Corp. (NYSE:SCG) | 6,381.10 | 0.05\% | 4.07\% | 4.35\% | 8.51\% | 0.00\% |
| Schlumberger Limited (NYSE:SLB) | 99,500.60 | 0.74\% | 1.47\% | 20.70\% | 22.32\% | 0.17\% |
| Scripps Networks Interactive, Inc. (NYSE:SNI) | 8,731.00 | 0.07\% | 0.82\% | 13.20\% | 14.07\% | 0.01\% |
| Seagate Technology Public Limited Company (NasdaqGS:STX) | 13,753.40 | 0.10\% | 3.70\% | 21.20\% | 25.29\% | 0.03\% |
| Sealed Air Corporation (NYSE:SEE) | 2,687.20 | 0.02\% | 3.76\% | 8.43\% | 12.35\% | 0.00\% |
| Sears Holdings Corporation (NasdaqGS:SHLD) | 6,418.20 | 0.05\% | 0.00\% | 0.00\% | 0.00\% | N/A |
| Sempra Energy (NYSE:SRE) | 16,534.60 | 0.12\% | 3.48\% | 5.20\% | 8.77\% | 0.01\% |
| Sigma-Aldrich Corporation (NasdaqGS:SIAL) | 8,731.00 | 0.07\% | 1.11\% | 8.21\% | 9.37\% | 0.01\% |
| Simon Property Group Inc. (NYSE:SPG) | 48,444.80 | 0.36\% | 2.63\% | 6.97\% | 9.69\% | 0.04\% |
| SLM Corporation (NasdaqGS:SLM) | 7,548.00 | 0.06\% | 3.11\% | 5.30\% | 8.49\% | 0.00\% |
| Snap-on Inc. (NYSE:SNA) | 4,063.10 | 0.03\% | 1.95\% | 10.00\% | 12.05\% | 0.00\% |
| Southern Company (NYSE:SO) | 40,301.90 | 0.30\% | 4.25\% | 5.52\% | 9.89\% | 0.03\% |
| Southwest Airlines Co. (NYSE:LUV) | 6,739.70 | 0.05\% | 0.44\% | 39.70\% | 40.23\% | 0.02\% |
| Southwestern Energy Co. (NYSE:SWN) | 11,357.40 | 0.08\% | 0.00\% | 11.90\% | 11.90\% | 0.01\% |
| Spectra Energy Corp. (NYSE:SE) | 19,155.20 | 0.14\% | 3.82\% | 5.25\% | 9.17\% | 0.01\% |
| Sprint Nextel Corp. (NYSE:S) | 15,452.00 | 0.12\% | 0.00\% | -98.70\% | -98.70\% | -0.11\% |
| St. Jude Medical Inc. (NYSE:STJ) | 11,576.10 | 0.09\% | 2.50\% | 9.65\% | 12.27\% | 0.01\% |
| Stanley Black \& Decker, Inc. (NYSE:SWK) | 11,396.00 | 0.09\% | 2.89\% | 10.10\% | 13.14\% | 0.01\% |
| Staples, Inc. (NasdaqGS:SPLS) | 7,765.40 | 0.06\% | 3.87\% | 8.87\% | 12.91\% | 0.01\% |
| Starbucks Corporation (NasdaqGS:SBUX) | 36,784.00 | 0.27\% | 1.40\% | 18.60\% | 20.13\% | 0.06\% |
| Starwood Hotels \& Resorts Worldwide Inc. (NYSE:HOT) | 10,855.00 | 0.08\% | 0.91\% | 20.80\% | 21.80\% | 0.02\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| State Street Corporation (NYSE:STT) | 19,916.40 | 0.15\% | 2.31\% | 10.70\% | 13.13\% | 0.02\% |
| Stericycle, Inc. (NasdaqGS:SRCL) | 7,838.00 | 0.06\% | 0.00\% | 16.60\% | 16.60\% | 0.01\% |
| Stryker Corporation (NYSE:SYK) | 20,734.20 | 0.15\% | 1.56\% | 10.60\% | 12.24\% | 0.02\% |
| Sunoco, Inc. (NYSE:SUN) | 4,983.20 | 0.04\% | 1.68\% | -2.09\% | -0.43\% | 0.00\% |
| SunTrust Banks, Inc. (NYSE:STI) | 13,447.00 | 0.10\% | 0.79\% | 16.50\% | 17.36\% | 0.02\% |
| Symantec Corporation (NasdaqGS:SYMC) | 12,646.10 | 0.09\% | 0.00\% | 8.51\% | 8.51\% | 0.01\% |
| Sysco Corp. (NYSE:SYY) | 17,807.30 | 0.13\% | 3.55\% | 7.45\% | 11.13\% | 0.01\% |
| T. Rowe Price Group, Inc. (NasdaqGS:TROW) | 15,902.60 | 0.12\% | 2.17\% | 13.00\% | 15.31\% | 0.02\% |
| Target Corp. (NYSE:TGT) | 41,790.70 | 0.31\% | 2.25\% | 11.90\% | 14.28\% | 0.04\% |
| TE Connectivity Ltd. (NYSE:TEL) | 15,255.70 | 0.11\% | 2.36\% | 13.00\% | 15.51\% | 0.02\% |
| TECO Energy, Inc. (NYSE:TE) | 3,861.70 | 0.03\% | 4.94\% | 4.23\% | 9.27\% | 0.00\% |
| Tenet Healthcare Corp. (NYSE:THC) | 2,204.60 | 0.02\% | 0.00\% | 11.20\% | 11.20\% | 0.00\% |
| Teradata Corporation (NYSE:TDC) | 12,758.00 | 0.10\% | 0.00\% | 15.80\% | 15.80\% | 0.02\% |
| Teradyne Inc. (NYSE:TER) | 2,980.80 | 0.02\% | 0.00\% | 12.40\% | 12.40\% | 0.00\% |
| Tesoro Corporation (NYSE:TSO) | 5,379.80 | 0.04\% | 1.24\% | 20.70\% | 22.07\% | 0.01\% |
| Texas Instruments Inc. (NasdaqGS:TXN) | 34,439.90 | 0.26\% | 2.25\% | 9.66\% | 12.02\% | 0.03\% |
| Textron Inc. (NYSE:TXT) | 7,585.40 | 0.06\% | 0.30\% | 29.90\% | 30.24\% | 0.02\% |
| The AES Corporation (NYSE:AES) | 8,818.90 | 0.07\% | 1.36\% | 8.20\% | 9.62\% | 0.01\% |
| The Allstate Corporation (NYSE:ALL) | 18,301.10 | 0.14\% | 2.33\% | 9.17\% | 11.61\% | 0.02\% |
| The Bank of New York Mellon Corporation (NYSE:BK) | 26,591.00 | 0.20\% | 2.31\% | 9.70\% | 12.12\% | 0.02\% |
| The Boeing Company (NYSE:BA) | 55,362.40 | 0.41\% | 2.39\% | 10.20\% | 12.71\% | 0.05\% |
| The Charles Schwab Corporation (NYSE:SCHW) | 16,958.40 | 0.13\% | 1.80\% | 11.40\% | 13.30\% | 0.02\% |
| The Chubb Corporation (NYSE:CB) | 19,292.70 | 0.14\% | 2.26\% | 9.07\% | 11.43\% | 0.02\% |
| The Clorox Company (NYSE:CLX) | 9,392.20 | 0.07\% | 3.55\% | 7.29\% | 10.97\% | 0.01\% |
| The Coca-Cola Company (NYSE:KO) | 178,051.10 | 1.33\% | 2.58\% | 8.86\% | 11.55\% | 0.15\% |
| The Dow Chemical Company (NYSE:DOW) | 36,003.10 | 0.27\% | 4.26\% | 8.88\% | 13.33\% | 0.04\% |
| The Goldman Sachs Group, Inc. (NYSE:GS) | 51,372.40 | 0.38\% | 1.78\% | 23.90\% | 25.89\% | 0.10\% |
| The Hartford Financial Services Group, Inc. (NYSE:HIG) | 7,748.80 | 0.06\% | 2.25\% | 13.50\% | 15.90\% | 0.01\% |
| The Hershey Company (NYSE:HSY) | 16,159.00 | 0.12\% | 2.10\% | 9.38\% | 11.58\% | 0.01\% |
| The Home Depot, Inc. (NYSE:HD) | 86,191.60 | 0.64\% | 2.06\% | 14.50\% | 16.71\% | 0.11\% |
| The Interpublic Group of Companies, Inc. (NYSE:IPG) | 4,843.40 | 0.04\% | 2.17\% | 16.40\% | 18.75\% | 0.01\% |
| The J. M. Smucker Company (NYSE:SJM) | 8,721.20 | 0.07\% | 2.43\% | 7.60\% | 10.12\% | 0.01\% |
| The Kroger Co. (NYSE:KR) | 12,053.80 | 0.09\% | 2.08\% | 8.38\% | 10.55\% | 0.01\% |
| The McGraw-Hill Companies, Inc. (NYSE:MHP) | 13,763.40 | 0.10\% | 2.08\% | 11.30\% | 13.50\% | 0.01\% |
| The Mosaic Company (NYSE:MOS) | 25,375.10 | 0.19\% | 1.68\% | 11.60\% | 13.38\% | 0.03\% |
| The Sherwin-Williams Company (NYSE:SHW) | 14,279.20 | 0.11\% | 1.12\% | 11.80\% | 12.99\% | 0.01\% |
| The TJX Companies, Inc. (NYSE:TJX) | 33,483.60 | 0.25\% | 1.02\% | 13.20\% | 14.29\% | 0.04\% |
| The Travelers Companies, Inc. (NYSE:TRV) | 24,674.50 | 0.18\% | 2.87\% | 10.60\% | 13.62\% | 0.03\% |
| The Washington Post Company (NYSE:WPO) | 2,591.30 | 0.02\% | 2.82\% | 0.00\% | 2.82\% | 0.00\% |
| The Western Union Company (NYSE:WU) | 10,680.40 | 0.08\% | 2.26\% | 11.00\% | 13.38\% | 0.01\% |
| Thermo Fisher Scientific, Inc. (NYSE:TMO) | 20,672.00 | 0.15\% | 0.92\% | 11.80\% | 12.77\% | 0.02\% |
| Tiffany \& Co. (NYSE:TIF) | 7,556.70 | 0.06\% | 2.15\% | 13.40\% | 15.69\% | 0.01\% |
| Time Warner Cable Inc. (NYSE:TWC) | 27,435.00 | 0.20\% | 2.50\% | 18.60\% | 21.33\% | 0.04\% |
| Time Warner Inc. (NYSE:TWX) | 40,348.20 | 0.30\% | 2.45\% | 12.30\% | 14.90\% | 0.04\% |
| Titanium Metals Corporation (NYSE:TIE) | 2,226.80 | 0.02\% | 2.36\% | 15.00\% | 17.54\% | 0.00\% |
| Torchmark Corp. (NYSE:TMK) | 4,856.80 | 0.04\% | 1.18\% | 9.22\% | 10.45\% | 0.00\% |
| Total System Services, Inc. (NYSE:TSS) | 4,462.90 | 0.03\% | 1.69\% | 10.50\% | 12.28\% | 0.00\% |
| TripAdvisor Inc. (NasdaqGS:TRIP) | 4,817.90 | 0.04\% | 0.00\% | 15.80\% | 15.80\% | 0.01\% |
| Tyco International Ltd. (NYSE:TYC) | 26,818.20 | 0.20\% | 0.86\% | 16.70\% | 17.64\% | 0.04\% |
| Tyson Foods Inc. (NYSE:TSN) | 5,523.20 | 0.04\% | 1.05\% | 7.33\% | 8.42\% | 0.00\% |
| U.S. Bancorp (NYSE:USB) | 62,942.90 | 0.47\% | 2.35\% | 8.67\% | 11.12\% | 0.05\% |
| Union Pacific Corporation (NYSE:UNP) | 59,163.10 | 0.44\% | 1.92\% | 15.60\% | 17.67\% | 0.08\% |
| United Parcel Service, Inc. (NYSE:UPS) | 73,196.10 | 0.55\% | 2.99\% | 11.30\% | 14.46\% | 0.08\% |
| United States Steel Corp. (NYSE:X) | 3,279.40 | 0.02\% | 0.88\% | 5.33\% | 6.23\% | 0.00\% |
| United Technologies Corp. (NYSE:UTX) | 71,821.50 | 0.54\% | 2.72\% | 10.90\% | 13.77\% | 0.07\% |
| Unitedhealth Group, Inc. (NYSE:UNH) | 55,136.20 | 0.41\% | 1.59\% | 12.50\% | 14.19\% | 0.06\% |
| Unum Group (NYSE:UNM) | 5,501.90 | 0.04\% | 2.65\% | 9.40\% | 12.17\% | 0.01\% |
| Urban Outfitters Inc. (NasdaqGS:URBN) | 4,486.20 | 0.03\% | 0.00\% | 18.00\% | 18.00\% | 0.01\% |
| V.F. Corporation (NYSE:VFC) | 16,599.10 | 0.12\% | 1.91\% | 12.50\% | 14.53\% | 0.02\% |
| Valero Energy Corporation (NYSE:VLO) | 16,007.60 | 0.12\% | 2.41\% | 7.56\% | 10.06\% | 0.01\% |
| Varian Medical Systems Inc. (NYSE:VAR) | 6,565.40 | 0.05\% | 0.00\% | 12.10\% | 12.10\% | 0.01\% |
| Ventas, Inc. (NYSE:VTR) | 18,989.70 | 0.14\% | 3.86\% | 5.48\% | 9.45\% | 0.01\% |
| VeriSign, Inc. (NasdaqGS:VRSN) | 7,469.40 | 0.06\% | 5.76\% | 15.00\% | 21.19\% | 0.01\% |
| Verizon Communications Inc. (NYSE:VZ) | 125,692.50 | 0.94\% | 4.53\% | 8.15\% | 12.86\% | 0.12\% |
| Viacom, Inc. (NasdaqGS:VIAB) | 25,758.40 | 0.19\% | 2.20\% | 15.60\% | 17.97\% | 0.03\% |
| Visa, Inc. (NYSE:V) | 86,744.90 | 0.65\% | 0.68\% | 19.00\% | 19.74\% | 0.13\% |
| Vornado Realty Trust (NYSE:VNO) | 15,175.50 | 0.11\% | 3.38\% | -4.41\% | -1.10\% | 0.00\% |
| Vulcan Materials Company (NYSE:VMC) | 5,152.40 | 0.04\% | 0.10\% | 9.75\% | 9.85\% | 0.00\% |
| W.W. Grainger, Inc. (NYSE:GWW) | 14,363.70 | 0.11\% | 1.55\% | 14.40\% | 16.06\% | 0.02\% |
| Wal-Mart Stores Inc. (NYSE:WMT) | 244,122.50 | 1.82\% | 2.20\% | 9.82\% | 12.13\% | 0.22\% |
| Walgreen Co. (NYSE:WAG) | 33,454.80 | 0.25\% | 3.10\% | 11.70\% | 14.98\% | 0.04\% |
| Walt Disney Co. (NYSE:DIS) | 90,162.30 | 0.67\% | 1.19\% | 12.50\% | 13.76\% | 0.09\% |
| Waste Management, Inc. (NYSE:WM) | 16,539.70 | 0.12\% | 3.98\% | 5.95\% | 10.05\% | 0.01\% |
| Waters Corp. (NYSE:WAT) | 6,678.40 | 0.05\% | 0.00\% | 9.99\% | 9.99\% | 0.00\% |
| Watson Pharmaceuticals, Inc. (NYSE:WPI) | 10,174.60 | 0.08\% | 0.00\% | 13.50\% | 13.50\% | 0.01\% |
| WellPoint Inc. (NYSE:WLP) | 18,808.80 | 0.14\% | 1.99\% | 10.00\% | 12.09\% | 0.02\% |
| Wells Fargo \& Company (NYSE:WFC) | 180,281.00 | 1.35\% | 2.87\% | 10.40\% | 13.42\% | 0.18\% |
| Western Digital Corp. (NasdaqGS:WDC) | 11,807.80 | 0.09\% | 0.00\% | 6.75\% | 6.75\% | 0.01\% |
| Weyerhaeuser Co. (NYSE:WY) | 13,073.10 | 0.10\% | 2.45\% | 5.00\% | 7.51\% | 0.01\% |
| Whirlpool Corp. (NYSE:WHR) | 5,724.40 | 0.04\% | 2.71\% | 0.00\% | 2.71\% | 0.00\% |
| Whole Foods Market, Inc. (NasdaqGS:WFM) | 17,715.10 | 0.13\% | 0.58\% | 19.90\% | 20.54\% | 0.03\% |
| Williams Companies, Inc. (NYSE:WMB) | 20,460.40 | 0.15\% | 3.67\% | 13.00\% | 16.91\% | 0.03\% |
| Windstream Corporation (NasdaqGS:WIN) | 5,650.60 | 0.04\% | 10.40\% | -1.12\% | 9.22\% | 0.00\% |


|  | [4] | [5] | [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Company (Ticker) | Market Capitalization | Weight in Index | Estimated Dividend Yield | Long-Term Growth Est. | DCF Result | Weighted DCF Result |
| Wisconsin Energy Corp. (NYSE:WEC) | 8,881.40 | 0.07\% | 3.11\% | 5.37\% | 8.56\% | 0.01\% |
| WPX Energy, Inc. (NYSE:WPX) | 2,903.90 | 0.02\% | 0.00\% | 0.00\% | 0.00\% | N/A |
| Wyndham Worldwide Corporation (NYSE:WYN) | 7,446.40 | 0.06\% | 1.76\% | 20.20\% | 22.14\% | 0.01\% |
| Wynn Resorts Ltd. (NasdaqGS:WYNN) | 12,955.60 | 0.10\% | 6.72\% | 24.80\% | 32.35\% | 0.03\% |
| Xcel Energy Inc. (NYSE:XEL) | 13,929.40 | 0.10\% | 3.78\% | 5.31\% | 9.19\% | 0.01\% |
| Xerox Corp. (NYSE:XRX) | 9,517.10 | 0.07\% | 2.32\% | 5.40\% | 7.78\% | 0.01\% |
| Xilinx Inc. (NasdaqGS:XLNX) | 8,942.60 | 0.07\% | 2.58\% | 12.70\% | 15.44\% | 0.01\% |
| XL Group plc (NYSE:XL) | 7,171.90 | 0.05\% | 1.88\% | 8.75\% | 10.71\% | 0.01\% |
| Xylem Inc. (NYSE:XYL) | 4,628.70 | 0.03\% | 1.62\% | 11.00\% | 12.71\% | 0.00\% |
| Yahoo! Inc. (NasdaqGS:YHOO) | 17,757.40 | 0.13\% | 0.00\% | 13.80\% | 13.80\% | 0.02\% |
| Yum! Brands, Inc. (NYSE:YUM) | 30,145.40 | 0.23\% | 1.72\% | 13.00\% | 14.83\% | 0.03\% |
| Zimmer Holdings, Inc. (NYSE:ZMH) | 10,806.60 | 0.08\% | 1.16\% | 9.61\% | 10.83\% | 0.01\% |
| Zions Bancorp. (NasdaqGS:ZION) | 3,541.20 | 0.03\% | 0.21\% | 11.50\% | 11.72\% | 0.00\% |
| Total Market Capitalization: | 13,387,935.60 |  |  |  |  | 13.07\% |
| Notes: |  |  |  |  |  |  |
| [1] Equals sum of Col. [9] |  |  |  |  |  |  |
| [2] Source: Bloomberg Professional |  |  |  |  |  |  |
| [3] Equals [1] - [2] |  |  |  |  |  |  |
| [4] Source: Capital IQ |  |  |  |  |  |  |
| [5] Equals weight in S\&P 500 based on market capitalization |  |  |  |  |  |  |
| [6] Source: Capital IQ |  |  |  |  |  |  |
| [7] Source: Capital IQ |  |  |  |  |  |  |
| [8] Equals ([6] $\times(1+(0.5 \times[7]))$ ) + [7] |  |  |  |  |  |  |
| [9] Equals Col. [5] x Col. [8] |  |  |  |  |  |  |

Bloomberg, Value Line, and Calculated Beta Coefficients

|  |  | [1] | [2] | [3] |
| :---: | :---: | :---: | :---: | :---: |
| Company | Ticker | Bloomberg | Value Line | Calculated |
| American Electric Power Company, Inc. | AEP | 0.589 | 0.70 | 0.642 |
| Cleco Corp. | CNL | 0.723 | 0.65 | 0.750 |
| Empire District Electric | EDE | 0.719 | 0.70 | 0.734 |
| Great Plains Energy Inc. | GXP | 0.744 | 0.75 | 0.732 |
| IDACORP, Inc. | IDA | 0.771 | 0.70 | 0.784 |
| Otter Tail Corporation | OTTR | 0.779 | 0.90 | 0.803 |
| Pinnacle West Capital Corp. | PNW | 0.689 | 0.70 | 0.667 |
| PNM Resources, Inc. | PNM | 0.694 | 0.95 | 0.704 |
| Portland General Electric Company | POR | 0.716 | 0.75 | 0.729 |
| Southern Company | SO | 0.495 | 0.55 | 0.497 |
| Westar Energy, Inc. | WR | 0.660 | 0.75 | 0.648 |
| Mean |  | 0.689 | 0.74 | 0.699 |

Notes:
[1] Source: Bloomberg Professional
[2] Source: Value Line
[3] Data Source: Bloomberg Professional; Beta coefficients calculated over 12-months based on weekly returns

Capital Asset Pricing Model Results
Sharpe Ratio, Bloomberg, and Capital IQ Derived Market Risk Premium

|  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ex-An | Market Risk | Premium |  | CAPM Result |  |
|  | $\begin{gathered} \text { Risk-Free } \\ \text { Rate } \\ \hline \end{gathered}$ | Average <br> Beta Coefficient | Sharpe Ratio Derived | Bloomberg Market DCF Derived | Capital IQ Market DCF Derived |  | Bloomberg Market DCF Derived | $\begin{gathered} \hline \text { Capital IQ } \\ \text { Market DCF } \\ \text { Derived } \\ \hline \end{gathered}$ |
| PROXY GROUP 12-MONTH BETA COEFFICIE |  |  |  |  |  |  |  |  |
| Current 30-Year Treasury (30-day average) [9] | 2.65\% | 0.699 | 8.01\% | 10.64\% | 10.43\% | 8.25\% | 10.09\% | 9.94\% |
| Near-Term Projected 30-Year Treasury [10] | 3.00\% | 0.699 | 8.01\% | 10.64\% | 10.43\% | 8.60\% | 10.44\% | 10.29\% |
| Long-Term Projected 30-Year Treasury [11] | 5.30\% | 0.699 | 8.01\% | 10.64\% | 10.43\% | 10.90\% | 12.74\% | 12.59\% |
| Mean |  |  |  |  |  | 9.25\% | 11.09\% | 10.94\% |
|  |  |  | Ex-A | Market Risk | remium |  | CAPM Result |  |
|  | Risk-Free Rate | Average Beta Coefficient | $\begin{aligned} & \text { Sharpe } \\ & \text { Ratio } \\ & \text { Derived } \end{aligned}$ | Bloomberg <br> Market DCF Derived | Capital IQ <br> Market DCF <br> Derived | $\begin{aligned} & \hline \text { Sharpe } \\ & \text { Ratio } \\ & \text { Derived } \end{aligned}$ | Bloomberg Market DCF Derived | Capital IQ Market DCF Derived |
| PROXY GROUP BLOOMBERG BETA COEFFI |  |  |  |  |  |  |  |  |
| Current 30-Year Treasury (30-day average) [9] | 2.65\% | 0.689 | 8.01\% | 10.64\% | 10.43\% | 8.17\% | 9.98\% | 9.83\% |
| Near-Term Projected 30-Year Treasury [10] | 3.00\% | 0.689 | 8.01\% | 10.64\% | 10.43\% | 8.52\% | 10.33\% | 10.19\% |
| Long-Term Projected 30-Year Treasury [11] | 5.30\% | 0.689 | 8.01\% | 10.64\% | 10.43\% | 10.82\% | 12.63\% | 12.49\% |
| Mean |  |  |  |  |  | 9.17\% | 10.98\% | 10.83\% |
|  | Risk-Free Rate | Average Beta Coefficient | Ex-Ante Market Risk Premium |  |  | CAPM Result |  |  |
|  |  |  | Sharpe Ratio Derived | Bloomberg Market DCF Derived | Capital IQ <br> Market DCF <br> Derived | $\begin{aligned} & \text { Sharpe } \\ & \text { Ratio } \\ & \text { Derived } \end{aligned}$ | Bloomberg Market DCF Derived | Capital IQ Market DCF Derived |
| PROXY GROUP VALUE LINE AVERAGE BETA COEFFICIENT |  |  |  |  |  |  |  |  |
| Current 30-Year Treasury (30-day average) [9] | 2.65\% | 0.736 | 8.01\% | 10.64\% | 10.43\% | 8.55\% | 10.48\% | 10.33\% |
| Near-Term Projected 30-Year Treasury [10] | 3.00\% | 0.736 | 8.01\% | 10.64\% | 10.43\% | 8.90\% | 10.84\% | 10.68\% |
| Long-Term Projected 30-Year Treasury [11] | 5.30\% | 0.736 | 8.01\% | 10.64\% | 10.43\% | 11.20\% | 13.14\% | 12.98\% |
| Mean |  |  |  |  |  | 9.55\% | 11.49\% | 11.33\% |

Notes:
[1] See Notes [9], [10], and [11]
[2] Source: Exhibit No. RBH-3
[3] Source: Exhibit No. RBH-2
[4] Source: Exhibit No. RBH-2
[5] Source: Exhibit No. RBH-2
[6] Equals Col. [1] $+($ Col. [2] $\times$ Col. [3])
[7] Equals Col. [1] + (Col. [2] $\times$ Col. [4])
[8] Equals Col. [1] + (Col. [2] x Col. [5])
[9] Source: Bloomberg Professional
[10] Source: Blue Chip Financial Forecasts, Vol. 31, No. 8, August 1, 2012, at 2
[11] Source: Blue Chip Financial Forecasts, Vol. 31, No. 6, June 1, 2012, at 14

|  | [1] | [2] | [3] <br> $30-Y e a r ~$ | [4] | [5] |
| ---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Treasury <br> Yield | Risk <br> Premium | Return on <br> Equity |
| Current | $-3.16 \%$ | $-2.98 \%$ | $2.65 \%$ | $7.64 \%$ | $10.29 \%$ |
| Constant | Slope | $-2.98 \%$ | $3.00 \%$ | $7.27 \%$ | $10.27 \%$ |
| Long Term Projected | $-3.16 \%$ | $-2.98 \%$ | $5.30 \%$ | $5.57 \%$ | $10.87 \%$ |



Notes:
[1] Constant of regression equation
[2] Slope of regression equation
[3] Source: Bloomberg Professional, Blue Chip Financial Forecasts, Vol. 31, No. 8, August 1, 2011, at 2, and Blue Chip Financial Forecasts, Vol. 31, No. 6, June 1, 2012, at 14
[4] Equals [1] $+[2] \times \ln ([3])$
[5] Equals [3] + [4]
[6] Source: SNL Financial
[7] Source: SNL Financial
[8] Source: Bloomberg Professional, equals 202-trading day average (i.e. lag period) as of August 17, 2012
[9] Equals [7] - [8]

| [6] | [7] | [8] | [9] |
| :---: | :---: | :---: | :---: |
| Date of |  | Average 30-Year |  |
| Electric Rate | Return on | Treasury | Risk |
| Case | Equity | Yield | Premium |
| 1/1/1980 | 14.50\% | 9.36\% | 5.14\% |
| 1/7/1980 | 14.39\% | 9.38\% | 5.01\% |
| 1/9/1980 | 15.00\% | 9.39\% | 5.61\% |
| 1/14/1980 | 15.17\% | 9.41\% | 5.76\% |
| 1/17/1980 | 13.93\% | 9.43\% | 4.50\% |
| 1/23/1980 | 15.50\% | 9.47\% | 6.03\% |
| 1/30/1980 | 13.86\% | 9.52\% | 4.34\% |
| 1/31/1980 | 12.61\% | 9.53\% | 3.08\% |
| 2/6/1980 | 13.71\% | 9.58\% | 4.13\% |
| 2/13/1980 | 12.80\% | 9.63\% | 3.17\% |
| 2/14/1980 | 13.00\% | 9.64\% | 3.36\% |
| 2/19/1980 | 13.50\% | 9.68\% | 3.82\% |
| 2/27/1980 | 13.75\% | 9.78\% | 3.97\% |
| 2/29/1980 | 13.75\% | 9.81\% | 3.94\% |
| 2/29/1980 | 14.00\% | 9.81\% | 4.19\% |
| 2/29/1980 | 14.77\% | 9.81\% | 4.96\% |
| 3/7/1980 | 12.70\% | 9.89\% | 2.81\% |
| 3/14/1980 | 13.50\% | 9.96\% | 3.54\% |
| 3/26/1980 | 14.16\% | 10.09\% | 4.07\% |
| 3/27/1980 | 14.24\% | 10.11\% | 4.13\% |
| 3/28/1980 | 14.50\% | 10.13\% | 4.37\% |
| 4/11/1980 | 12.75\% | 10.27\% | 2.48\% |
| 4/14/1980 | 13.85\% | 10.28\% | 3.57\% |
| 4/16/1980 | 15.50\% | 10.30\% | 5.20\% |
| 4/22/1980 | 13.25\% | 10.34\% | 2.91\% |
| 4/22/1980 | 13.90\% | 10.34\% | 3.56\% |
| 4/24/1980 | 16.80\% | 10.37\% | 6.43\% |
| 4/29/1980 | 15.50\% | 10.40\% | 5.10\% |
| 5/6/1980 | 13.70\% | 10.44\% | 3.26\% |
| 5/7/1980 | 15.00\% | 10.45\% | 4.55\% |
| 5/8/1980 | 13.75\% | 10.45\% | 3.30\% |
| 5/9/1980 | 14.35\% | 10.46\% | 3.89\% |


| 5/13/1980 | 13.60\% | 10.47\% | 3.13\% |
| :---: | :---: | :---: | :---: |
| 5/15/1980 | 13.25\% | 10.49\% | 2.76\% |
| 5/19/1980 | 13.75\% | 10.50\% | 3.25\% |
| 5/27/1980 | 13.62\% | 10.53\% | 3.09\% |
| 5/27/1980 | 14.60\% | 10.53\% | 4.07\% |
| 5/29/1980 | 16.00\% | 10.55\% | 5.45\% |
| 5/30/1980 | 13.80\% | 10.56\% | 3.24\% |
| 6/2/1980 | 15.63\% | 10.56\% | 5.07\% |
| 6/9/1980 | 15.90\% | 10.59\% | 5.31\% |
| 6/10/1980 | 13.78\% | 10.59\% | 3.19\% |
| 6/12/1980 | 14.25\% | 10.60\% | 3.65\% |
| 6/19/1980 | 13.40\% | 10.61\% | 2.79\% |
| 6/30/1980 | 13.00\% | 10.64\% | 2.36\% |
| 6/30/1980 | 13.40\% | 10.64\% | 2.76\% |
| 7/9/1980 | 14.75\% | 10.67\% | 4.08\% |
| 7/10/1980 | 15.00\% | 10.67\% | 4.33\% |
| 7/15/1980 | 15.80\% | 10.69\% | 5.11\% |
| 7/18/1980 | 13.80\% | 10.70\% | 3.10\% |
| 7/22/1980 | 14.10\% | 10.71\% | 3.39\% |
| 7/24/1980 | 15.00\% | 10.72\% | 4.28\% |
| 7/25/1980 | 13.48\% | 10.73\% | 2.75\% |
| 7/31/1980 | 14.58\% | 10.75\% | 3.83\% |
| 8/8/1980 | 13.50\% | 10.77\% | 2.73\% |
| 8/8/1980 | 14.00\% | 10.77\% | 3.23\% |
| 8/8/1980 | 15.45\% | 10.77\% | 4.68\% |
| 8/11/1980 | 14.85\% | 10.78\% | 4.07\% |
| 8/14/1980 | 14.00\% | 10.79\% | 3.21\% |
| 8/14/1980 | 16.25\% | 10.79\% | 5.46\% |
| 8/25/1980 | 13.75\% | 10.82\% | 2.93\% |
| 8/27/1980 | 13.80\% | 10.83\% | 2.97\% |
| 8/29/1980 | 12.50\% | 10.83\% | 1.67\% |
| 9/15/1980 | 13.50\% | 10.87\% | 2.63\% |
| 9/15/1980 | 13.93\% | 10.87\% | 3.06\% |
| 9/15/1980 | 15.80\% | 10.87\% | 4.93\% |
| 9/24/1980 | 12.50\% | 10.92\% | 1.58\% |
| 9/24/1980 | 15.00\% | 10.92\% | 4.08\% |
| 9/26/1980 | 13.75\% | 10.94\% | 2.81\% |
| 9/30/1980 | 14.10\% | 10.96\% | 3.14\% |
| 9/30/1980 | 14.20\% | 10.96\% | 3.24\% |
| 10/1/1980 | 13.90\% | 10.96\% | 2.94\% |
| 10/3/1980 | 15.50\% | 10.98\% | 4.52\% |
| 10/7/1980 | 12.50\% | 10.99\% | 1.51\% |
| 10/9/1980 | 13.25\% | 11.00\% | 2.25\% |
| 10/9/1980 | 14.50\% | 11.00\% | 3.50\% |
| 10/9/1980 | 14.50\% | 11.00\% | 3.50\% |
| 10/16/1980 | 16.10\% | 11.02\% | 5.08\% |
| 10/17/1980 | 14.50\% | 11.03\% | 3.47\% |
| 10/31/1980 | 13.75\% | 11.10\% | 2.65\% |
| 10/31/1980 | 14.25\% | 11.10\% | 3.15\% |
| 11/4/1980 | 15.00\% | 11.11\% | 3.89\% |
| 11/5/1980 | 13.75\% | 11.12\% | 2.63\% |
| 11/5/1980 | 14.00\% | 11.12\% | 2.88\% |
| 11/8/1980 | 13.75\% | 11.14\% | 2.61\% |
| 11/10/1980 | 14.85\% | 11.15\% | 3.70\% |
| 11/17/1980 | 14.00\% | 11.18\% | 2.82\% |
| 11/18/1980 | 14.00\% | 11.19\% | 2.81\% |
| 11/19/1980 | 13.00\% | 11.19\% | 1.81\% |
| 11/24/1980 | 14.00\% | 11.21\% | 2.79\% |
| 11/26/1980 | 14.00\% | 11.21\% | 2.79\% |
| 12/8/1980 | 14.15\% | 11.23\% | 2.92\% |
| 12/8/1980 | 15.10\% | 11.23\% | 3.87\% |
| 12/9/1980 | 15.35\% | 11.23\% | 4.12\% |
| 12/12/1980 | 15.45\% | 11.23\% | 4.22\% |
| 12/17/1980 | 13.25\% | 11.24\% | 2.01\% |
| 12/18/1980 | 15.80\% | 11.24\% | 4.56\% |
| 12/19/1980 | 14.50\% | 11.24\% | 3.26\% |
| 12/19/1980 | 14.64\% | 11.24\% | 3.40\% |
| 12/22/1980 | 13.45\% | 11.24\% | 2.21\% |
| 12/22/1980 | 15.00\% | 11.24\% | 3.76\% |
| 12/30/1980 | 14.50\% | 11.22\% | 3.28\% |
| 12/30/1980 | 14.95\% | 11.22\% | 3.73\% |
| 12/31/1980 | 13.39\% | 11.22\% | 2.17\% |
| 1/2/1981 | 15.25\% | 11.22\% | 4.03\% |
| 1/7/1981 | 14.30\% | 11.21\% | 3.09\% |
| 1/19/1981 | 15.25\% | 11.20\% | 4.05\% |
| 1/23/1981 | 13.10\% | 11.20\% | 1.90\% |
| 1/23/1981 | 14.40\% | 11.20\% | 3.20\% |
| 1/26/1981 | 15.25\% | 11.21\% | 4.04\% |
| 1/27/1981 | 15.00\% | 11.21\% | 3.79\% |


| 1/31/1981 | 13.47\% | 11.22\% | 2.25\% |
| :---: | :---: | :---: | :---: |
| 2/3/1981 | 15.25\% | 11.23\% | 4.02\% |
| 2/5/1981 | 15.75\% | 11.24\% | 4.51\% |
| 2/11/1981 | 15.60\% | 11.28\% | 4.32\% |
| 2/20/1981 | 15.25\% | 11.33\% | 3.92\% |
| 3/11/1981 | 15.40\% | 11.49\% | 3.91\% |
| 3/12/1981 | 14.51\% | 11.50\% | 3.01\% |
| 3/12/1981 | 16.00\% | 11.50\% | 4.50\% |
| 3/13/1981 | 13.02\% | 11.51\% | 1.51\% |
| 3/18/1981 | 16.19\% | 11.54\% | 4.65\% |
| 3/19/1981 | 13.75\% | 11.55\% | 2.20\% |
| 3/23/1981 | 14.30\% | 11.57\% | 2.73\% |
| 3/25/1981 | 15.30\% | 11.60\% | 3.70\% |
| 4/1/1981 | 14.53\% | 11.67\% | 2.86\% |
| 4/3/1981 | 19.10\% | 11.70\% | 7.40\% |
| 4/9/1981 | 15.00\% | 11.77\% | 3.23\% |
| 4/9/1981 | 15.30\% | 11.77\% | 3.53\% |
| 4/9/1981 | 16.50\% | 11.77\% | 4.73\% |
| 4/9/1981 | 17.00\% | 11.77\% | 5.23\% |
| 4/10/1981 | 13.75\% | 11.79\% | 1.96\% |
| 4/13/1981 | 13.57\% | 11.81\% | 1.76\% |
| 4/15/1981 | 15.30\% | 11.84\% | 3.46\% |
| 4/16/1981 | 13.50\% | 11.86\% | 1.64\% |
| 4/17/1981 | 14.10\% | 11.86\% | 2.24\% |
| 4/21/1981 | 14.00\% | 11.89\% | 2.11\% |
| 4/21/1981 | 16.80\% | 11.89\% | 4.91\% |
| 4/24/1981 | 16.00\% | 11.94\% | 4.06\% |
| 4/27/1981 | 12.50\% | 11.96\% | 0.54\% |
| 4/27/1981 | 13.61\% | 11.96\% | 1.65\% |
| 4/29/1981 | 13.65\% | 11.99\% | 1.66\% |
| 4/30/1981 | 13.50\% | 12.01\% | 1.49\% |
| 5/4/1981 | 16.22\% | 12.04\% | 4.18\% |
| 5/5/1981 | 14.40\% | 12.06\% | 2.34\% |
| 5/7/1981 | 16.25\% | 12.10\% | 4.15\% |
| 5/7/1981 | 16.27\% | 12.10\% | 4.17\% |
| 5/8/1981 | 13.00\% | 12.12\% | 0.88\% |
| 5/8/1981 | 16.00\% | 12.12\% | 3.88\% |
| 5/12/1981 | 13.50\% | 12.15\% | 1.35\% |
| 5/15/1981 | 15.75\% | 12.21\% | 3.54\% |
| 5/18/1981 | 14.88\% | 12.22\% | 2.66\% |
| 5/20/1981 | 16.00\% | 12.25\% | 3.75\% |
| 5/21/1981 | 14.00\% | 12.27\% | 1.73\% |
| 5/26/1981 | 14.90\% | 12.29\% | 2.61\% |
| 5/27/1981 | 15.00\% | 12.31\% | 2.69\% |
| 5/29/1981 | 15.50\% | 12.33\% | 3.17\% |
| 6/1/1981 | 16.50\% | 12.34\% | 4.16\% |
| 6/3/1981 | 14.67\% | 12.36\% | 2.31\% |
| 6/5/1981 | 13.00\% | 12.38\% | 0.62\% |
| 6/10/1981 | 16.75\% | 12.41\% | 4.34\% |
| 6/17/1981 | 14.40\% | 12.45\% | 1.95\% |
| 6/18/1981 | 16.33\% | 12.46\% | 3.87\% |
| 6/25/1981 | 14.75\% | 12.51\% | 2.24\% |
| 6/26/1981 | 16.00\% | 12.52\% | 3.48\% |
| 6/30/1981 | 15.25\% | 12.54\% | 2.71\% |
| 7/1/1981 | 15.50\% | 12.55\% | 2.95\% |
| 7/1/1981 | 17.50\% | 12.55\% | 4.95\% |
| 7/10/1981 | 16.00\% | 12.61\% | 3.39\% |
| 7/14/1981 | 16.90\% | 12.63\% | 4.27\% |
| 7/15/1981 | 16.00\% | 12.64\% | 3.36\% |
| 7/17/1981 | 15.00\% | 12.66\% | 2.34\% |
| 7/20/1981 | 15.00\% | 12.67\% | 2.33\% |
| 7/21/1981 | 14.00\% | 12.68\% | 1.32\% |
| 7/28/1981 | 13.48\% | 12.73\% | 0.75\% |
| 7/31/1981 | 13.50\% | 12.77\% | 0.73\% |
| 7/31/1981 | 15.00\% | 12.77\% | 2.23\% |
| 7/31/1981 | 16.00\% | 12.77\% | 3.23\% |
| 8/5/1981 | 15.71\% | 12.82\% | 2.89\% |
| 8/10/1981 | 14.50\% | 12.86\% | 1.64\% |
| 8/11/1981 | 15.00\% | 12.87\% | 2.13\% |
| 8/20/1981 | 13.50\% | 12.94\% | 0.56\% |
| 8/20/1981 | 16.50\% | 12.94\% | 3.56\% |
| 8/24/1981 | 15.00\% | 12.96\% | 2.04\% |
| 8/28/1981 | 15.00\% | 13.01\% | 1.99\% |
| 9/3/1981 | 14.50\% | 13.05\% | 1.45\% |
| 9/10/1981 | 14.50\% | 13.10\% | 1.40\% |
| 9/11/1981 | 16.00\% | 13.11\% | 2.89\% |
| 9/16/1981 | 16.00\% | 13.14\% | 2.86\% |
| 9/17/1981 | 16.50\% | 13.15\% | 3.35\% |
| 9/23/1981 | 15.85\% | 13.19\% | 2.66\% |


| 9/28/1981 | 15.50\% | 13.23\% | 2.27\% |
| :---: | :---: | :---: | :---: |
| 10/9/1981 | 15.75\% | 13.32\% | 2.43\% |
| 10/15/1981 | 16.25\% | 13.36\% | 2.89\% |
| 10/16/1981 | 15.50\% | 13.37\% | 2.13\% |
| 10/16/1981 | 16.50\% | 13.37\% | 3.13\% |
| 10/19/1981 | 14.25\% | 13.38\% | 0.87\% |
| 10/20/1981 | 15.25\% | 13.40\% | 1.85\% |
| 10/20/1981 | 17.00\% | 13.40\% | 3.60\% |
| 10/23/1981 | 16.00\% | 13.44\% | 2.56\% |
| 10/27/1981 | 10.00\% | 13.48\% | -3.48\% |
| 10/29/1981 | 14.75\% | 13.50\% | 1.25\% |
| 10/29/1981 | 16.50\% | 13.50\% | 3.00\% |
| 11/3/1981 | 15.17\% | 13.53\% | 1.64\% |
| 11/5/1981 | 16.60\% | 13.55\% | 3.05\% |
| 11/6/1981 | 15.17\% | 13.55\% | 1.62\% |
| 11/24/1981 | 15.50\% | 13.60\% | 1.90\% |
| 11/25/1981 | 15.25\% | 13.60\% | 1.65\% |
| 11/25/1981 | 15.35\% | 13.60\% | 1.75\% |
| 11/25/1981 | 16.10\% | 13.60\% | 2.50\% |
| 11/25/1981 | 16.10\% | 13.60\% | 2.50\% |
| 12/1/1981 | 15.70\% | 13.61\% | 2.09\% |
| 12/1/1981 | 16.00\% | 13.61\% | 2.39\% |
| 12/1/1981 | 16.49\% | 13.61\% | 2.88\% |
| 12/1/1981 | 16.50\% | 13.61\% | 2.89\% |
| 12/4/1981 | 16.00\% | 13.61\% | 2.39\% |
| 12/11/1981 | 16.25\% | 13.62\% | 2.63\% |
| 12/14/1981 | 14.00\% | 13.62\% | 0.38\% |
| 12/15/1981 | 15.81\% | 13.63\% | 2.18\% |
| 12/15/1981 | 16.00\% | 13.63\% | 2.37\% |
| 12/16/1981 | 15.25\% | 13.63\% | 1.62\% |
| 12/17/1981 | 16.50\% | 13.63\% | 2.87\% |
| 12/18/1981 | 15.45\% | 13.63\% | 1.82\% |
| 12/30/1981 | 14.25\% | 13.66\% | 0.59\% |
| 12/30/1981 | 16.00\% | 13.66\% | 2.34\% |
| 12/30/1981 | 16.25\% | 13.66\% | 2.59\% |
| 12/31/1981 | 16.15\% | 13.67\% | 2.48\% |
| 1/4/1982 | 15.50\% | 13.67\% | 1.83\% |
| 1/11/1982 | 14.50\% | 13.72\% | 0.78\% |
| 1/11/1982 | 17.00\% | 13.72\% | 3.28\% |
| 1/13/1982 | 14.75\% | 13.74\% | 1.01\% |
| 1/14/1982 | 15.75\% | 13.74\% | 2.01\% |
| 1/15/1982 | 15.00\% | 13.75\% | 1.25\% |
| 1/15/1982 | 16.50\% | 13.75\% | 2.75\% |
| 1/22/1982 | 16.25\% | 13.79\% | 2.46\% |
| 1/27/1982 | 16.84\% | 13.81\% | 3.03\% |
| 1/28/1982 | 13.00\% | 13.81\% | -0.81\% |
| 1/29/1982 | 15.50\% | 13.81\% | 1.69\% |
| 2/1/1982 | 15.85\% | 13.82\% | 2.03\% |
| 2/3/1982 | 16.44\% | 13.83\% | 2.61\% |
| 2/8/1982 | 15.50\% | 13.85\% | 1.65\% |
| 2/11/1982 | 16.00\% | 13.87\% | 2.13\% |
| 2/11/1982 | 16.20\% | 13.87\% | 2.33\% |
| 2/17/1982 | 15.00\% | 13.88\% | 1.12\% |
| 2/19/1982 | 15.17\% | 13.89\% | 1.28\% |
| 2/26/1982 | 15.25\% | 13.89\% | 1.36\% |
| 3/1/1982 | 15.03\% | 13.89\% | 1.14\% |
| 3/1/1982 | 16.00\% | 13.89\% | 2.11\% |
| 3/3/1982 | 15.00\% | 13.88\% | 1.12\% |
| 3/3/1982 | 15.00\% | 13.88\% | 1.12\% |
| 3/8/1982 | 17.10\% | 13.88\% | 3.22\% |
| 3/12/1982 | 16.25\% | 13.88\% | 2.37\% |
| 3/17/1982 | 17.30\% | 13.88\% | 3.42\% |
| 3/22/1982 | 15.10\% | 13.88\% | 1.22\% |
| 3/27/1982 | 15.40\% | 13.89\% | 1.51\% |
| 3/30/1982 | 15.50\% | 13.90\% | 1.60\% |
| 3/31/1982 | 17.00\% | 13.90\% | 3.10\% |
| 4/1/1982 | 14.70\% | 13.91\% | 0.79\% |
| 4/1/1982 | 16.50\% | 13.91\% | 2.59\% |
| 4/2/1982 | 15.50\% | 13.91\% | 1.59\% |
| 4/5/1982 | 15.50\% | 13.91\% | 1.59\% |
| 4/8/1982 | 16.40\% | 13.93\% | 2.47\% |
| 4/13/1982 | 14.50\% | 13.93\% | 0.57\% |
| 4/23/1982 | 15.75\% | 13.94\% | 1.81\% |
| 4/27/1982 | 15.00\% | 13.94\% | 1.06\% |
| 4/28/1982 | 15.75\% | 13.94\% | 1.81\% |
| 4/30/1982 | 14.70\% | 13.94\% | 0.76\% |
| 4/30/1982 | 15.50\% | 13.94\% | 1.56\% |
| 5/3/1982 | 16.60\% | 13.94\% | 2.66\% |
| 5/4/1982 | 16.00\% | 13.94\% | 2.06\% |


| 5/14/1982 | 15.50\% | 13.92\% | 1.58\% |
| :---: | :---: | :---: | :---: |
| 5/18/1982 | 15.42\% | 13.92\% | 1.50\% |
| 5/19/1982 | 14.69\% | 13.91\% | 0.78\% |
| 5/20/1982 | 15.00\% | 13.91\% | 1.09\% |
| 5/20/1982 | 15.10\% | 13.91\% | 1.19\% |
| 5/20/1982 | 15.50\% | 13.91\% | 1.59\% |
| 5/20/1982 | 16.30\% | 13.91\% | 2.39\% |
| 5/21/1982 | 17.75\% | 13.91\% | 3.84\% |
| 5/27/1982 | 15.00\% | 13.89\% | 1.11\% |
| 5/28/1982 | 15.50\% | 13.89\% | 1.61\% |
| 5/28/1982 | 17.00\% | 13.89\% | 3.11\% |
| 6/1/1982 | 13.75\% | 13.89\% | -0.14\% |
| 6/1/1982 | 16.60\% | 13.89\% | 2.71\% |
| 6/9/1982 | 17.86\% | 13.88\% | 3.98\% |
| 6/14/1982 | 15.75\% | 13.88\% | 1.87\% |
| 6/15/1982 | 14.85\% | 13.88\% | 0.97\% |
| 6/18/1982 | 15.50\% | 13.87\% | 1.63\% |
| 6/21/1982 | 14.90\% | 13.87\% | 1.03\% |
| 6/23/1982 | 16.00\% | 13.87\% | 2.13\% |
| 6/23/1982 | 16.17\% | 13.87\% | 2.30\% |
| 6/24/1982 | 14.85\% | 13.86\% | 0.99\% |
| 6/25/1982 | 14.70\% | 13.86\% | 0.84\% |
| 7/1/1982 | 16.00\% | 13.85\% | 2.15\% |
| 7/2/1982 | 15.62\% | 13.84\% | 1.78\% |
| 7/2/1982 | 17.00\% | 13.84\% | 3.16\% |
| 7/13/1982 | 14.00\% | 13.82\% | 0.18\% |
| 7/13/1982 | 16.80\% | 13.82\% | 2.98\% |
| 7/14/1982 | 15.76\% | 13.82\% | 1.94\% |
| 7/14/1982 | 16.02\% | 13.82\% | 2.20\% |
| 7/19/1982 | 16.50\% | 13.80\% | 2.70\% |
| 7/22/1982 | 14.50\% | 13.78\% | 0.72\% |
| 7/22/1982 | 17.00\% | 13.78\% | 3.22\% |
| 7/27/1982 | 16.75\% | 13.75\% | 3.00\% |
| 7/29/1982 | 16.50\% | 13.74\% | 2.76\% |
| 8/11/1982 | 17.50\% | 13.69\% | 3.81\% |
| 8/18/1982 | 17.07\% | 13.64\% | 3.43\% |
| 8/20/1982 | 15.73\% | 13.61\% | 2.12\% |
| 8/25/1982 | 16.00\% | 13.57\% | 2.43\% |
| 8/26/1982 | 15.50\% | 13.56\% | 1.94\% |
| 8/30/1982 | 15.00\% | 13.55\% | 1.45\% |
| 9/3/1982 | 16.20\% | 13.53\% | 2.67\% |
| 9/8/1982 | 15.00\% | 13.52\% | 1.48\% |
| 9/15/1982 | 13.08\% | 13.50\% | -0.42\% |
| 9/15/1982 | 16.25\% | 13.50\% | 2.75\% |
| 9/16/1982 | 16.00\% | 13.50\% | 2.50\% |
| 9/17/1982 | 15.25\% | 13.49\% | 1.76\% |
| 9/23/1982 | 17.17\% | 13.47\% | 3.70\% |
| 9/24/1982 | 14.50\% | 13.46\% | 1.04\% |
| 9/27/1982 | 15.25\% | 13.46\% | 1.79\% |
| 10/1/1982 | 15.50\% | 13.42\% | 2.08\% |
| 10/15/1982 | 15.90\% | 13.32\% | 2.58\% |
| 10/22/1982 | 15.75\% | 13.25\% | 2.50\% |
| 10/22/1982 | 17.15\% | 13.25\% | 3.90\% |
| 10/29/1982 | 15.54\% | 13.17\% | 2.37\% |
| 11/1/1982 | 15.50\% | 13.15\% | 2.35\% |
| 11/3/1982 | 17.20\% | 13.13\% | 4.07\% |
| 11/4/1982 | 16.25\% | 13.12\% | 3.13\% |
| 11/5/1982 | 16.20\% | 13.10\% | 3.10\% |
| 11/9/1982 | 16.00\% | 13.06\% | 2.94\% |
| 11/23/1982 | 15.50\% | 12.89\% | 2.61\% |
| 11/23/1982 | 15.85\% | 12.89\% | 2.96\% |
| 11/30/1982 | 16.50\% | 12.82\% | 3.68\% |
| 12/1/1982 | 17.04\% | 12.79\% | 4.25\% |
| 12/6/1982 | 15.00\% | 12.74\% | 2.26\% |
| 12/6/1982 | 16.35\% | 12.74\% | 3.61\% |
| 12/10/1982 | 15.50\% | 12.67\% | 2.83\% |
| 12/13/1982 | 16.00\% | 12.65\% | 3.35\% |
| 12/14/1982 | 15.30\% | 12.63\% | 2.67\% |
| 12/14/1982 | 16.40\% | 12.63\% | 3.77\% |
| 12/20/1982 | 16.00\% | 12.58\% | 3.42\% |
| 12/21/1982 | 14.75\% | 12.56\% | 2.19\% |
| 12/21/1982 | 15.85\% | 12.56\% | 3.29\% |
| 12/22/1982 | 16.25\% | 12.55\% | 3.70\% |
| 12/22/1982 | 16.58\% | 12.55\% | 4.03\% |
| 12/22/1982 | 16.75\% | 12.55\% | 4.20\% |
| 12/29/1982 | 14.90\% | 12.49\% | 2.41\% |
| 12/29/1982 | 16.25\% | 12.49\% | 3.76\% |
| 12/30/1982 | 16.00\% | 12.47\% | 3.53\% |
| 12/30/1982 | 16.35\% | 12.47\% | 3.88\% |


| 12/30/1982 | 16.77\% | 12.47\% | 4.30\% |
| :---: | :---: | :---: | :---: |
| 1/5/1983 | 17.33\% | 12.41\% | 4.92\% |
| 1/11/1983 | 15.90\% | 12.35\% | 3.55\% |
| 1/12/1983 | 14.63\% | 12.34\% | 2.29\% |
| 1/12/1983 | 15.50\% | 12.34\% | 3.16\% |
| 1/20/1983 | 17.75\% | 12.24\% | 5.51\% |
| 1/21/1983 | 15.00\% | 12.23\% | 2.77\% |
| 1/24/1983 | 14.50\% | 12.21\% | 2.29\% |
| 1/24/1983 | 15.50\% | 12.21\% | 3.29\% |
| 1/25/1983 | 15.85\% | 12.20\% | 3.65\% |
| 1/27/1983 | 16.14\% | 12.17\% | 3.97\% |
| 2/1/1983 | 18.50\% | 12.14\% | 6.36\% |
| 2/4/1983 | 14.00\% | 12.10\% | 1.90\% |
| 2/10/1983 | 15.00\% | 12.06\% | 2.94\% |
| 2/21/1983 | 15.50\% | 11.99\% | 3.51\% |
| 2/22/1983 | 15.50\% | 11.98\% | 3.52\% |
| 2/23/1983 | 15.10\% | 11.96\% | 3.14\% |
| 2/23/1983 | 16.00\% | 11.96\% | 4.04\% |
| 3/2/1983 | 15.25\% | 11.90\% | 3.35\% |
| 3/9/1983 | 15.20\% | 11.83\% | 3.37\% |
| 3/15/1983 | 13.00\% | 11.78\% | 1.22\% |
| 3/18/1983 | 15.25\% | 11.74\% | 3.51\% |
| 3/23/1983 | 15.40\% | 11.70\% | 3.70\% |
| 3/24/1983 | 15.00\% | 11.68\% | 3.32\% |
| 3/29/1983 | 15.50\% | 11.64\% | 3.86\% |
| 3/30/1983 | 16.71\% | 11.62\% | 5.09\% |
| 3/31/1983 | 15.00\% | 11.61\% | 3.39\% |
| 4/4/1983 | 15.20\% | 11.59\% | 3.61\% |
| 4/8/1983 | 15.50\% | 11.52\% | 3.98\% |
| 4/11/1983 | 14.81\% | 11.50\% | 3.31\% |
| 4/19/1983 | 14.50\% | 11.39\% | 3.11\% |
| 4/20/1983 | 16.00\% | 11.37\% | 4.63\% |
| 4/29/1983 | 16.00\% | 11.26\% | 4.74\% |
| 5/1/1983 | 14.50\% | 11.26\% | 3.24\% |
| 5/9/1983 | 15.50\% | 11.16\% | 4.34\% |
| 5/11/1983 | 16.46\% | 11.13\% | 5.33\% |
| 5/12/1983 | 14.14\% | 11.12\% | 3.02\% |
| 5/18/1983 | 15.00\% | 11.06\% | 3.94\% |
| 5/23/1983 | 14.90\% | 11.02\% | 3.88\% |
| 5/23/1983 | 15.50\% | 11.02\% | 4.48\% |
| 5/25/1983 | 15.50\% | 11.00\% | 4.50\% |
| 5/27/1983 | 15.00\% | 10.97\% | 4.03\% |
| 5/31/1983 | 14.00\% | 10.96\% | 3.04\% |
| 5/31/1983 | 15.50\% | 10.96\% | 4.54\% |
| 6/2/1983 | 14.50\% | 10.94\% | 3.56\% |
| 6/17/1983 | 15.03\% | 10.85\% | 4.18\% |
| 7/1/1983 | 14.80\% | 10.78\% | 4.02\% |
| 7/1/1983 | 14.90\% | 10.78\% | 4.12\% |
| 7/8/1983 | 16.25\% | 10.76\% | 5.49\% |
| 7/13/1983 | 13.20\% | 10.76\% | 2.44\% |
| 7/19/1983 | 15.00\% | 10.75\% | 4.25\% |
| 7/19/1983 | 15.10\% | 10.75\% | 4.35\% |
| 7/25/1983 | 16.25\% | 10.74\% | 5.51\% |
| 7/28/1983 | 15.90\% | 10.74\% | 5.16\% |
| 8/3/1983 | 16.34\% | 10.75\% | 5.59\% |
| 8/3/1983 | 16.50\% | 10.75\% | 5.75\% |
| 8/19/1983 | 15.00\% | 10.80\% | 4.20\% |
| 8/22/1983 | 15.50\% | 10.80\% | 4.70\% |
| 8/22/1983 | 16.40\% | 10.80\% | 5.60\% |
| 8/31/1983 | 14.75\% | 10.84\% | 3.91\% |
| 9/7/1983 | 15.00\% | 10.86\% | 4.14\% |
| 9/14/1983 | 15.78\% | 10.89\% | 4.89\% |
| 9/16/1983 | 15.00\% | 10.90\% | 4.10\% |
| 9/19/1983 | 14.50\% | 10.91\% | 3.59\% |
| 9/20/1983 | 16.50\% | 10.91\% | 5.59\% |
| 9/28/1983 | 14.50\% | 10.94\% | 3.56\% |
| 9/29/1983 | 15.50\% | 10.94\% | 4.56\% |
| 9/30/1983 | 15.25\% | 10.95\% | 4.30\% |
| 9/30/1983 | 16.15\% | 10.95\% | 5.20\% |
| 10/4/1983 | 14.80\% | 10.96\% | 3.84\% |
| 10/7/1983 | 16.00\% | 10.97\% | 5.03\% |
| 10/13/1983 | 15.52\% | 10.98\% | 4.54\% |
| 10/17/1983 | 15.50\% | 10.99\% | 4.51\% |
| 10/18/1983 | 14.50\% | 11.00\% | 3.50\% |
| 10/19/1983 | 16.25\% | 11.00\% | 5.25\% |
| 10/19/1983 | 16.50\% | 11.00\% | 5.50\% |
| 10/26/1983 | 15.00\% | 11.03\% | 3.97\% |
| 10/27/1983 | 15.20\% | 11.04\% | 4.16\% |
| 11/1/1983 | 16.00\% | 11.06\% | 4.94\% |


| 11/9/1983 | 14.90\% | 11.09\% | 3.81\% |
| :---: | :---: | :---: | :---: |
| 11/10/1983 | 14.35\% | 11.10\% | 3.25\% |
| 11/23/1983 | 16.00\% | 11.13\% | 4.87\% |
| 11/23/1983 | 16.15\% | 11.13\% | 5.02\% |
| 11/30/1983 | 15.00\% | 11.14\% | 3.86\% |
| 12/5/1983 | 15.25\% | 11.15\% | 4.10\% |
| 12/6/1983 | 15.07\% | 11.15\% | 3.92\% |
| 12/8/1983 | 15.90\% | 11.16\% | 4.74\% |
| 12/9/1983 | 14.75\% | 11.17\% | 3.58\% |
| 12/12/1983 | 14.50\% | 11.17\% | 3.33\% |
| 12/15/1983 | 15.56\% | 11.19\% | 4.37\% |
| 12/19/1983 | 14.80\% | 11.21\% | 3.59\% |
| 12/20/1983 | 14.69\% | 11.21\% | 3.48\% |
| 12/20/1983 | 16.00\% | 11.21\% | 4.79\% |
| 12/20/1983 | 16.25\% | 11.21\% | 5.04\% |
| 12/22/1983 | 14.75\% | 11.23\% | 3.52\% |
| 12/22/1983 | 15.75\% | 11.23\% | 4.52\% |
| 1/3/1984 | 14.75\% | 11.26\% | 3.49\% |
| 1/10/1984 | 15.90\% | 11.29\% | 4.61\% |
| 1/12/1984 | 15.60\% | 11.30\% | 4.30\% |
| 1/18/1984 | 13.75\% | 11.32\% | 2.43\% |
| 1/19/1984 | 15.90\% | 11.33\% | 4.57\% |
| 1/30/1984 | 16.10\% | 11.36\% | 4.74\% |
| 1/31/1984 | 15.25\% | 11.37\% | 3.88\% |
| 2/1/1984 | 14.80\% | 11.38\% | 3.42\% |
| 2/6/1984 | 13.75\% | 11.40\% | 2.35\% |
| 2/6/1984 | 14.75\% | 11.40\% | 3.35\% |
| 2/9/1984 | 15.25\% | 11.42\% | 3.83\% |
| 2/15/1984 | 15.70\% | 11.44\% | 4.26\% |
| 2/20/1984 | 15.00\% | 11.45\% | 3.55\% |
| 2/20/1984 | 15.00\% | 11.45\% | 3.55\% |
| 2/22/1984 | 14.75\% | 11.47\% | 3.28\% |
| 2/28/1984 | 14.50\% | 11.50\% | 3.00\% |
| 3/2/1984 | 14.25\% | 11.53\% | 2.72\% |
| 3/20/1984 | 16.00\% | 11.64\% | 4.36\% |
| 3/23/1984 | 15.50\% | 11.66\% | 3.84\% |
| 3/26/1984 | 14.71\% | 11.67\% | 3.04\% |
| 4/2/1984 | 15.50\% | 11.71\% | 3.79\% |
| 4/6/1984 | 14.74\% | 11.75\% | 2.99\% |
| 4/11/1984 | 15.72\% | 11.77\% | 3.95\% |
| 4/17/1984 | 15.00\% | 11.80\% | 3.20\% |
| 4/18/1984 | 16.20\% | 11.81\% | 4.39\% |
| 4/25/1984 | 14.64\% | 11.85\% | 2.79\% |
| 4/30/1984 | 14.40\% | 11.87\% | 2.53\% |
| 5/16/1984 | 14.69\% | 11.98\% | 2.71\% |
| 5/16/1984 | 15.00\% | 11.98\% | 3.02\% |
| 5/22/1984 | 14.40\% | 12.02\% | 2.38\% |
| 5/29/1984 | 15.10\% | 12.06\% | 3.04\% |
| 6/13/1984 | 15.25\% | 12.15\% | 3.10\% |
| 6/15/1984 | 15.60\% | 12.17\% | 3.43\% |
| 6/22/1984 | 16.25\% | 12.21\% | 4.04\% |
| 6/29/1984 | 15.25\% | 12.25\% | 3.00\% |
| 7/2/1984 | 13.35\% | 12.26\% | 1.09\% |
| 7/10/1984 | 16.00\% | 12.31\% | 3.69\% |
| 7/12/1984 | 16.50\% | 12.32\% | 4.18\% |
| 7/13/1984 | 16.25\% | 12.33\% | 3.92\% |
| 7/17/1984 | 14.14\% | 12.35\% | 1.79\% |
| 7/18/1984 | 15.30\% | 12.35\% | 2.95\% |
| 7/18/1984 | 15.50\% | 12.35\% | 3.15\% |
| 7/19/1984 | 14.30\% | 12.36\% | 1.94\% |
| 7/24/1984 | 16.79\% | 12.39\% | 4.40\% |
| 7/31/1984 | 16.00\% | 12.42\% | 3.58\% |
| 8/3/1984 | 14.25\% | 12.44\% | 1.81\% |
| 8/17/1984 | 14.30\% | 12.48\% | 1.82\% |
| 8/20/1984 | 15.00\% | 12.49\% | 2.51\% |
| 8/27/1984 | 16.30\% | 12.50\% | 3.80\% |
| 8/31/1984 | 15.55\% | 12.52\% | 3.03\% |
| 9/6/1984 | 16.00\% | 12.53\% | 3.47\% |
| 9/10/1984 | 14.75\% | 12.54\% | 2.21\% |
| 9/13/1984 | 15.00\% | 12.55\% | 2.45\% |
| 9/17/1984 | 17.38\% | 12.55\% | 4.83\% |
| 9/26/1984 | 14.50\% | 12.57\% | 1.93\% |
| 9/28/1984 | 15.00\% | 12.57\% | 2.43\% |
| 9/28/1984 | 16.25\% | 12.57\% | 3.68\% |
| 10/9/1984 | 14.75\% | 12.58\% | 2.17\% |
| 10/12/1984 | 15.60\% | 12.58\% | 3.02\% |
| 10/22/1984 | 15.00\% | 12.58\% | 2.42\% |
| 10/26/1984 | 16.40\% | 12.58\% | 3.82\% |
| 10/31/1984 | 16.25\% | 12.58\% | 3.67\% |


| 11/7/1984 | 15.60\% | 12.58\% | 3.02\% |
| :---: | :---: | :---: | :---: |
| 11/9/1984 | 16.00\% | 12.58\% | 3.42\% |
| 11/14/1984 | 15.75\% | 12.58\% | 3.17\% |
| 11/20/1984 | 15.25\% | 12.57\% | 2.68\% |
| 11/20/1984 | 15.92\% | 12.57\% | 3.35\% |
| 11/23/1984 | 15.00\% | 12.57\% | 2.43\% |
| 11/28/1984 | 16.15\% | 12.56\% | 3.59\% |
| 12/3/1984 | 15.80\% | 12.56\% | 3.24\% |
| 12/4/1984 | 16.50\% | 12.56\% | 3.94\% |
| 12/18/1984 | 16.40\% | 12.53\% | 3.87\% |
| 12/19/1984 | 14.75\% | 12.53\% | 2.22\% |
| 12/19/1984 | 15.00\% | 12.53\% | 2.47\% |
| 12/20/1984 | 16.00\% | 12.52\% | 3.48\% |
| 12/28/1984 | 16.00\% | 12.50\% | 3.50\% |
| 1/3/1985 | 14.75\% | 12.49\% | 2.26\% |
| 1/10/1985 | 15.75\% | 12.47\% | 3.28\% |
| 1/11/1985 | 16.30\% | 12.46\% | 3.84\% |
| 1/23/1985 | 15.80\% | 12.43\% | 3.37\% |
| 1/24/1985 | 15.82\% | 12.43\% | 3.39\% |
| 1/25/1985 | 16.75\% | 12.42\% | 4.33\% |
| 1/30/1985 | 14.90\% | 12.40\% | 2.50\% |
| 1/31/1985 | 14.75\% | 12.39\% | 2.36\% |
| 2/8/1985 | 14.47\% | 12.36\% | 2.11\% |
| 3/1/1985 | 13.84\% | 12.31\% | 1.53\% |
| 3/8/1985 | 16.85\% | 12.29\% | 4.56\% |
| 3/14/1985 | 15.50\% | 12.26\% | 3.24\% |
| 3/15/1985 | 15.62\% | 12.26\% | 3.36\% |
| 3/29/1985 | 15.62\% | 12.17\% | 3.45\% |
| 4/3/1985 | 14.60\% | 12.14\% | 2.46\% |
| 4/9/1985 | 15.50\% | 12.11\% | 3.39\% |
| 4/16/1985 | 15.70\% | 12.06\% | 3.64\% |
| 4/22/1985 | 14.00\% | 12.02\% | 1.98\% |
| 4/26/1985 | 15.50\% | 11.99\% | 3.51\% |
| 4/29/1985 | 15.00\% | 11.98\% | 3.02\% |
| 5/2/1985 | 14.68\% | 11.94\% | 2.74\% |
| 5/8/1985 | 15.62\% | 11.90\% | 3.72\% |
| 5/10/1985 | 16.50\% | 11.88\% | 4.62\% |
| 5/29/1985 | 14.61\% | 11.74\% | 2.87\% |
| 5/31/1985 | 16.00\% | 11.72\% | 4.28\% |
| 6/14/1985 | 15.50\% | 11.61\% | 3.89\% |
| 7/9/1985 | 15.00\% | 11.45\% | 3.55\% |
| 7/16/1985 | 14.50\% | 11.40\% | 3.10\% |
| 7/26/1985 | 14.50\% | 11.33\% | 3.17\% |
| 8/2/1985 | 14.80\% | 11.29\% | 3.51\% |
| 8/7/1985 | 15.00\% | 11.27\% | 3.73\% |
| 8/28/1985 | 14.25\% | 11.15\% | 3.10\% |
| 8/28/1985 | 15.50\% | 11.15\% | 4.35\% |
| 8/29/1985 | 14.50\% | 11.15\% | 3.35\% |
| 9/9/1985 | 14.60\% | 11.11\% | 3.49\% |
| 9/9/1985 | 14.90\% | 11.11\% | 3.79\% |
| 9/17/1985 | 14.90\% | 11.09\% | 3.81\% |
| 9/23/1985 | 15.00\% | 11.07\% | 3.93\% |
| 9/27/1985 | 15.50\% | 11.05\% | 4.45\% |
| 9/27/1985 | 15.80\% | 11.05\% | 4.75\% |
| 10/2/1985 | 14.00\% | 11.04\% | 2.96\% |
| 10/2/1985 | 14.75\% | 11.04\% | 3.71\% |
| 10/3/1985 | 15.25\% | 11.03\% | 4.22\% |
| 10/24/1985 | 15.40\% | 10.96\% | 4.44\% |
| 10/24/1985 | 15.82\% | 10.96\% | 4.86\% |
| 10/24/1985 | 15.85\% | 10.96\% | 4.89\% |
| 10/28/1985 | 16.00\% | 10.95\% | 5.05\% |
| 10/29/1985 | 16.65\% | 10.95\% | 5.70\% |
| 10/31/1985 | 15.06\% | 10.93\% | 4.13\% |
| 11/4/1985 | 14.50\% | 10.92\% | 3.58\% |
| 11/7/1985 | 15.50\% | 10.90\% | 4.60\% |
| 11/8/1985 | 14.30\% | 10.89\% | 3.41\% |
| 12/12/1985 | 14.75\% | 10.73\% | 4.02\% |
| 12/18/1985 | 15.00\% | 10.70\% | 4.30\% |
| 12/20/1985 | 14.50\% | 10.68\% | 3.82\% |
| 12/20/1985 | 14.50\% | 10.68\% | 3.82\% |
| 12/20/1985 | 15.00\% | 10.68\% | 4.32\% |
| 1/24/1986 | 15.40\% | 10.41\% | 4.99\% |
| 1/31/1986 | 15.00\% | 10.36\% | 4.64\% |
| 2/5/1986 | 15.00\% | 10.33\% | 4.67\% |
| 2/5/1986 | 15.75\% | 10.33\% | 5.42\% |
| 2/10/1986 | 13.30\% | 10.30\% | 3.00\% |
| 2/11/1986 | 12.50\% | 10.28\% | 2.22\% |
| 2/14/1986 | 14.40\% | 10.25\% | 4.15\% |
| 2/18/1986 | 16.00\% | 10.24\% | 5.76\% |


| 2/24/1986 | 14.50\% | 10.18\% | 4.32\% |
| :---: | :---: | :---: | :---: |
| 2/26/1986 | 14.00\% | 10.16\% | 3.84\% |
| 3/5/1986 | 14.90\% | 10.08\% | 4.82\% |
| 3/11/1986 | 14.50\% | 10.02\% | 4.48\% |
| 3/12/1986 | 13.50\% | 10.01\% | 3.49\% |
| 3/27/1986 | 14.10\% | 9.86\% | 4.24\% |
| 3/31/1986 | 13.50\% | 9.84\% | 3.66\% |
| 4/1/1986 | 14.00\% | 9.83\% | 4.17\% |
| 4/2/1986 | 15.50\% | 9.81\% | 5.69\% |
| 4/4/1986 | 15.00\% | 9.78\% | 5.22\% |
| 4/14/1986 | 13.40\% | 9.69\% | 3.71\% |
| 4/23/1986 | 15.00\% | 9.58\% | 5.42\% |
| 5/16/1986 | 14.50\% | 9.33\% | 5.17\% |
| 5/16/1986 | 14.50\% | 9.33\% | 5.17\% |
| 5/29/1986 | 13.90\% | 9.20\% | 4.70\% |
| 5/30/1986 | 15.10\% | 9.19\% | 5.91\% |
| 6/2/1986 | 12.81\% | 9.17\% | 3.64\% |
| 6/11/1986 | 14.00\% | 9.08\% | 4.92\% |
| 6/24/1986 | 16.63\% | 8.94\% | 7.69\% |
| 6/26/1986 | 12.00\% | 8.91\% | 3.09\% |
| 6/26/1986 | 14.75\% | 8.91\% | 5.84\% |
| 6/30/1986 | 13.00\% | 8.88\% | 4.12\% |
| 7/10/1986 | 14.34\% | 8.76\% | 5.58\% |
| 7/11/1986 | 12.75\% | 8.74\% | 4.01\% |
| 7/14/1986 | 12.60\% | 8.72\% | 3.88\% |
| 7/17/1986 | 12.40\% | 8.67\% | 3.73\% |
| 7/25/1986 | 14.25\% | 8.58\% | 5.67\% |
| 8/6/1986 | 13.50\% | 8.45\% | 5.05\% |
| 8/14/1986 | 13.50\% | 8.36\% | 5.14\% |
| 9/16/1986 | 12.75\% | 8.07\% | 4.68\% |
| 9/19/1986 | 13.25\% | 8.04\% | 5.21\% |
| 10/1/1986 | 14.00\% | 7.96\% | 6.04\% |
| 10/3/1986 | 13.40\% | 7.94\% | 5.46\% |
| 10/31/1986 | 13.50\% | 7.78\% | 5.72\% |
| 11/5/1986 | 13.00\% | 7.76\% | 5.24\% |
| 12/3/1986 | 12.90\% | 7.59\% | 5.31\% |
| 12/4/1986 | 14.44\% | 7.58\% | 6.86\% |
| 12/16/1986 | 13.60\% | 7.53\% | 6.07\% |
| 12/22/1986 | 13.80\% | 7.51\% | 6.29\% |
| 12/30/1986 | 13.00\% | 7.49\% | 5.51\% |
| 1/2/1987 | 13.00\% | 7.49\% | 5.51\% |
| 1/12/1987 | 12.40\% | 7.47\% | 4.93\% |
| 1/27/1987 | 12.71\% | 7.46\% | 5.25\% |
| 3/2/1987 | 12.47\% | 7.47\% | 5.00\% |
| 3/3/1987 | 13.60\% | 7.47\% | 6.13\% |
| 3/4/1987 | 12.38\% | 7.47\% | 4.91\% |
| 3/10/1987 | 13.50\% | 7.47\% | 6.03\% |
| 3/13/1987 | 13.00\% | 7.47\% | 5.53\% |
| 3/31/1987 | 13.00\% | 7.47\% | 5.53\% |
| 4/6/1987 | 13.00\% | 7.47\% | 5.53\% |
| 4/14/1987 | 12.50\% | 7.49\% | 5.01\% |
| 4/16/1987 | 14.50\% | 7.50\% | 7.00\% |
| 4/27/1987 | 12.00\% | 7.54\% | 4.46\% |
| 5/5/1987 | 12.85\% | 7.58\% | 5.27\% |
| 5/12/1987 | 12.65\% | 7.62\% | 5.03\% |
| 5/28/1987 | 13.50\% | 7.70\% | 5.80\% |
| 6/15/1987 | 13.20\% | 7.78\% | 5.42\% |
| 6/29/1987 | 15.00\% | 7.83\% | 7.17\% |
| 6/30/1987 | 12.50\% | 7.84\% | 4.66\% |
| 7/8/1987 | 12.00\% | 7.86\% | 4.14\% |
| 7/10/1987 | 12.90\% | 7.86\% | 5.04\% |
| 7/15/1987 | 13.50\% | 7.88\% | 5.62\% |
| 7/16/1987 | 13.50\% | 7.88\% | 5.62\% |
| 7/16/1987 | 15.00\% | 7.88\% | 7.12\% |
| 7/27/1987 | 13.00\% | 7.92\% | 5.08\% |
| 7/27/1987 | 13.40\% | 7.92\% | 5.48\% |
| 7/27/1987 | 13.50\% | 7.92\% | 5.58\% |
| 7/31/1987 | 12.98\% | 7.94\% | 5.04\% |
| 8/26/1987 | 12.63\% | 8.05\% | 4.58\% |
| 8/26/1987 | 12.75\% | 8.05\% | 4.70\% |
| 8/27/1987 | 13.25\% | 8.06\% | 5.19\% |
| 9/9/1987 | 13.00\% | 8.13\% | 4.87\% |
| 9/30/1987 | 12.75\% | 8.30\% | 4.45\% |
| 9/30/1987 | 13.00\% | 8.30\% | 4.70\% |
| 10/2/1987 | 11.50\% | 8.33\% | 3.17\% |
| 10/15/1987 | 13.00\% | 8.43\% | 4.57\% |
| 11/2/1987 | 13.00\% | 8.54\% | 4.46\% |
| 11/19/1987 | 13.00\% | 8.63\% | 4.37\% |
| 11/30/1987 | 12.00\% | 8.68\% | 3.32\% |


| 12/3/1987 | 14.20\% | 8.70\% | 5.50\% |
| :---: | :---: | :---: | :---: |
| 12/15/1987 | 13.25\% | 8.77\% | 4.48\% |
| 12/16/1987 | 13.50\% | 8.78\% | 4.72\% |
| 12/16/1987 | 13.72\% | 8.78\% | 4.94\% |
| 12/17/1987 | 11.75\% | 8.78\% | 2.97\% |
| 12/18/1987 | 13.50\% | 8.79\% | 4.71\% |
| 12/21/1987 | 12.01\% | 8.80\% | 3.21\% |
| 12/22/1987 | 12.00\% | 8.81\% | 3.19\% |
| 12/22/1987 | 12.00\% | 8.81\% | 3.19\% |
| 12/22/1987 | 12.75\% | 8.81\% | 3.94\% |
| 12/22/1987 | 13.00\% | 8.81\% | 4.19\% |
| 1/20/1988 | 13.80\% | 8.93\% | 4.87\% |
| 1/26/1988 | 13.90\% | 8.95\% | 4.95\% |
| 1/29/1988 | 13.20\% | 8.95\% | 4.25\% |
| 2/4/1988 | 12.60\% | 8.96\% | 3.64\% |
| 3/1/1988 | 11.56\% | 8.94\% | 2.62\% |
| 3/23/1988 | 12.87\% | 8.92\% | 3.95\% |
| 3/24/1988 | 11.24\% | 8.92\% | 2.32\% |
| 3/30/1988 | 12.72\% | 8.92\% | 3.80\% |
| 4/1/1988 | 12.50\% | 8.92\% | 3.58\% |
| 4/7/1988 | 13.25\% | 8.93\% | 4.32\% |
| 4/25/1988 | 10.96\% | 8.95\% | 2.01\% |
| 5/3/1988 | 12.91\% | 8.97\% | 3.94\% |
| 5/11/1988 | 13.50\% | 8.99\% | 4.51\% |
| 5/16/1988 | 13.00\% | 8.99\% | 4.01\% |
| 6/30/1988 | 12.75\% | 9.00\% | 3.75\% |
| 7/1/1988 | 12.75\% | 9.00\% | 3.75\% |
| 7/20/1988 | 13.40\% | 8.97\% | 4.43\% |
| 8/5/1988 | 12.75\% | 8.92\% | 3.83\% |
| 8/23/1988 | 11.70\% | 8.93\% | 2.77\% |
| 8/29/1988 | 12.75\% | 8.94\% | 3.81\% |
| 8/30/1988 | 13.50\% | 8.94\% | 4.56\% |
| 9/8/1988 | 12.60\% | 8.95\% | 3.65\% |
| 10/13/1988 | 13.10\% | 8.93\% | 4.17\% |
| 12/19/1988 | 13.00\% | 9.01\% | 3.99\% |
| 12/20/1988 | 12.25\% | 9.02\% | 3.23\% |
| 12/20/1988 | 13.00\% | 9.02\% | 3.98\% |
| 12/21/1988 | 12.90\% | 9.02\% | 3.88\% |
| 12/27/1988 | 13.00\% | 9.03\% | 3.97\% |
| 12/28/1988 | 13.10\% | 9.03\% | 4.07\% |
| 12/30/1988 | 13.40\% | 9.03\% | 4.37\% |
| 1/27/1989 | 13.00\% | 9.05\% | 3.95\% |
| 1/31/1989 | 13.00\% | 9.05\% | 3.95\% |
| 2/17/1989 | 13.00\% | 9.05\% | 3.95\% |
| 2/20/1989 | 12.40\% | 9.05\% | 3.35\% |
| 3/1/1989 | 12.76\% | 9.05\% | 3.71\% |
| 3/8/1989 | 13.00\% | 9.05\% | 3.95\% |
| 3/30/1989 | 14.00\% | 9.05\% | 4.95\% |
| 4/5/1989 | 14.20\% | 9.05\% | 5.15\% |
| 4/18/1989 | 13.00\% | 9.05\% | 3.95\% |
| 5/5/1989 | 12.40\% | 9.05\% | 3.35\% |
| 6/2/1989 | 13.20\% | 9.01\% | 4.19\% |
| 6/8/1989 | 13.50\% | 8.98\% | 4.52\% |
| 6/27/1989 | 13.25\% | 8.92\% | 4.33\% |
| 6/30/1989 | 13.00\% | 8.90\% | 4.10\% |
| 8/14/1989 | 12.50\% | 8.77\% | 3.73\% |
| 9/28/1989 | 12.25\% | 8.63\% | 3.62\% |
| 10/24/1989 | 12.50\% | 8.54\% | 3.96\% |
| 11/9/1989 | 13.00\% | 8.49\% | 4.51\% |
| 12/15/1989 | 13.00\% | 8.34\% | 4.66\% |
| 12/20/1989 | 12.90\% | 8.32\% | 4.58\% |
| 12/21/1989 | 12.90\% | 8.32\% | 4.58\% |
| 12/27/1989 | 12.50\% | 8.30\% | 4.20\% |
| 12/27/1989 | 13.00\% | 8.30\% | 4.70\% |
| 1/10/1990 | 12.80\% | 8.25\% | 4.55\% |
| 1/11/1990 | 12.90\% | 8.24\% | 4.66\% |
| 1/17/1990 | 12.80\% | 8.22\% | 4.58\% |
| 1/26/1990 | 12.00\% | 8.20\% | 3.80\% |
| 2/9/1990 | 12.10\% | 8.18\% | 3.92\% |
| 2/24/1990 | 12.86\% | 8.15\% | 4.71\% |
| 3/30/1990 | 12.90\% | 8.16\% | 4.74\% |
| 4/4/1990 | 15.76\% | 8.17\% | 7.59\% |
| 4/12/1990 | 12.52\% | 8.18\% | 4.34\% |
| 4/19/1990 | 12.75\% | 8.20\% | 4.55\% |
| 5/21/1990 | 12.10\% | 8.28\% | 3.82\% |
| 5/29/1990 | 12.40\% | 8.30\% | 4.10\% |
| 5/31/1990 | 12.00\% | 8.30\% | 3.70\% |
| 6/4/1990 | 12.90\% | 8.30\% | 4.60\% |
| 6/6/1990 | 12.25\% | 8.31\% | 3.94\% |


| 6/15/1990 | 13.20\% | 8.31\% | 4.89\% |
| :---: | :---: | :---: | :---: |
| 6/20/1990 | 12.92\% | 8.32\% | 4.60\% |
| 6/27/1990 | 12.90\% | 8.33\% | 4.57\% |
| 6/29/1990 | 12.50\% | 8.33\% | 4.17\% |
| 7/6/1990 | 12.10\% | 8.34\% | 3.76\% |
| 7/6/1990 | 12.35\% | 8.34\% | 4.01\% |
| 8/10/1990 | 12.55\% | 8.40\% | 4.15\% |
| 8/16/1990 | 13.21\% | 8.42\% | 4.79\% |
| 8/22/1990 | 13.10\% | 8.44\% | 4.66\% |
| 8/24/1990 | 13.00\% | 8.46\% | 4.54\% |
| 9/26/1990 | 11.45\% | 8.59\% | 2.86\% |
| 10/2/1990 | 13.00\% | 8.61\% | 4.39\% |
| 10/5/1990 | 12.84\% | 8.62\% | 4.22\% |
| 10/19/1990 | 13.00\% | 8.66\% | 4.34\% |
| 10/25/1990 | 12.30\% | 8.67\% | 3.63\% |
| 11/21/1990 | 12.70\% | 8.69\% | 4.01\% |
| 12/13/1990 | 12.30\% | 8.67\% | 3.63\% |
| 12/17/1990 | 12.87\% | 8.67\% | 4.20\% |
| 12/18/1990 | 13.10\% | 8.67\% | 4.43\% |
| 12/19/1990 | 12.00\% | 8.66\% | 3.34\% |
| 12/20/1990 | 12.75\% | 8.66\% | 4.09\% |
| 12/21/1990 | 12.50\% | 8.66\% | 3.84\% |
| 12/27/1990 | 12.79\% | 8.66\% | 4.13\% |
| 1/2/1991 | 13.10\% | 8.65\% | 4.45\% |
| 1/4/1991 | 12.50\% | 8.65\% | 3.85\% |
| 1/15/1991 | 12.75\% | 8.64\% | 4.11\% |
| 1/25/1991 | 11.70\% | 8.63\% | 3.07\% |
| 2/4/1991 | 12.50\% | 8.61\% | 3.89\% |
| 2/7/1991 | 12.50\% | 8.59\% | 3.91\% |
| 2/12/1991 | 13.00\% | 8.58\% | 4.42\% |
| 2/14/1991 | 12.72\% | 8.57\% | 4.15\% |
| 2/22/1991 | 12.80\% | 8.55\% | 4.25\% |
| 3/6/1991 | 13.10\% | 8.53\% | 4.57\% |
| 3/8/1991 | 12.30\% | 8.52\% | 3.78\% |
| 3/8/1991 | 13.00\% | 8.52\% | 4.48\% |
| 4/22/1991 | 13.00\% | 8.49\% | 4.51\% |
| 5/7/1991 | 13.50\% | 8.47\% | 5.03\% |
| 5/13/1991 | 13.25\% | 8.47\% | 4.78\% |
| 5/30/1991 | 12.75\% | 8.44\% | 4.31\% |
| 6/12/1991 | 12.00\% | 8.41\% | 3.59\% |
| 6/25/1991 | 11.70\% | 8.39\% | 3.31\% |
| 6/28/1991 | 12.50\% | 8.38\% | 4.12\% |
| 7/1/1991 | 12.00\% | 8.38\% | 3.62\% |
| 7/3/1991 | 12.50\% | 8.37\% | 4.13\% |
| 7/19/1991 | 12.10\% | 8.34\% | 3.76\% |
| 8/1/1991 | 12.90\% | 8.32\% | 4.58\% |
| 8/16/1991 | 13.20\% | 8.29\% | 4.91\% |
| 9/27/1991 | 12.50\% | 8.23\% | 4.27\% |
| 9/30/1991 | 12.25\% | 8.23\% | 4.02\% |
| 10/17/1991 | 13.00\% | 8.20\% | 4.80\% |
| 10/23/1991 | 12.50\% | 8.20\% | 4.30\% |
| 10/23/1991 | 12.55\% | 8.20\% | 4.35\% |
| 10/31/1991 | 11.80\% | 8.19\% | 3.61\% |
| 11/1/1991 | 12.00\% | 8.19\% | 3.81\% |
| 11/5/1991 | 12.25\% | 8.19\% | 4.06\% |
| 11/12/1991 | 12.50\% | 8.18\% | 4.32\% |
| 11/12/1991 | 13.25\% | 8.18\% | 5.07\% |
| 11/25/1991 | 12.40\% | 8.18\% | 4.22\% |
| 11/26/1991 | 11.60\% | 8.18\% | 3.42\% |
| 11/26/1991 | 12.50\% | 8.18\% | 4.32\% |
| 11/27/1991 | 12.10\% | 8.18\% | 3.92\% |
| 12/18/1991 | 12.25\% | 8.15\% | 4.10\% |
| 12/19/1991 | 12.60\% | 8.15\% | 4.45\% |
| 12/19/1991 | 12.80\% | 8.15\% | 4.65\% |
| 12/20/1991 | 12.65\% | 8.14\% | 4.51\% |
| 1/9/1992 | 12.80\% | 8.09\% | 4.71\% |
| 1/16/1992 | 12.75\% | 8.07\% | 4.68\% |
| 1/21/1992 | 12.00\% | 8.06\% | 3.94\% |
| 1/22/1992 | 13.00\% | 8.06\% | 4.94\% |
| 1/27/1992 | 12.65\% | 8.06\% | 4.59\% |
| 1/31/1992 | 12.00\% | 8.05\% | 3.95\% |
| 2/11/1992 | 12.40\% | 8.03\% | 4.37\% |
| 2/25/1992 | 12.50\% | 8.01\% | 4.49\% |
| 3/16/1992 | 11.43\% | 7.99\% | 3.44\% |
| 3/18/1992 | 12.28\% | 7.98\% | 4.30\% |
| 4/2/1992 | 12.10\% | 7.95\% | 4.15\% |
| 4/9/1992 | 11.45\% | 7.94\% | 3.51\% |
| 4/10/1992 | 11.50\% | 7.94\% | 3.56\% |
| 4/14/1992 | 11.50\% | 7.93\% | 3.57\% |


| 5/5/1992 | 11.50\% | 7.90\% | 3.60\% |
| :---: | :---: | :---: | :---: |
| 5/12/1992 | 11.87\% | 7.89\% | 3.98\% |
| 5/12/1992 | 12.46\% | 7.89\% | 4.57\% |
| 6/1/1992 | 12.30\% | 7.87\% | 4.43\% |
| 6/12/1992 | 10.90\% | 7.86\% | 3.04\% |
| 6/26/1992 | 12.35\% | 7.85\% | 4.50\% |
| 6/29/1992 | 11.00\% | 7.85\% | 3.15\% |
| 6/30/1992 | 13.00\% | 7.85\% | 5.15\% |
| 7/13/1992 | 11.90\% | 7.84\% | 4.06\% |
| 7/13/1992 | 13.50\% | 7.84\% | 5.66\% |
| 7/22/1992 | 11.20\% | 7.83\% | 3.37\% |
| 8/3/1992 | 12.00\% | 7.81\% | 4.19\% |
| 8/6/1992 | 12.50\% | 7.80\% | 4.70\% |
| 9/22/1992 | 12.00\% | 7.71\% | 4.29\% |
| 9/28/1992 | 11.40\% | 7.71\% | 3.69\% |
| 9/30/1992 | 11.75\% | 7.70\% | 4.05\% |
| 10/2/1992 | 13.00\% | 7.70\% | 5.30\% |
| 10/12/1992 | 12.20\% | 7.70\% | 4.50\% |
| 10/16/1992 | 13.16\% | 7.70\% | 5.46\% |
| 10/30/1992 | 11.75\% | 7.71\% | 4.04\% |
| 11/3/1992 | 12.00\% | 7.71\% | 4.29\% |
| 12/3/1992 | 11.85\% | 7.68\% | 4.17\% |
| 12/15/1992 | 11.00\% | 7.66\% | 3.34\% |
| 12/16/1992 | 11.90\% | 7.66\% | 4.24\% |
| 12/16/1992 | 12.40\% | 7.66\% | 4.74\% |
| 12/17/1992 | 12.00\% | 7.66\% | 4.34\% |
| 12/22/1992 | 12.30\% | 7.65\% | 4.65\% |
| 12/22/1992 | 12.40\% | 7.65\% | 4.75\% |
| 12/29/1992 | 12.25\% | 7.63\% | 4.62\% |
| 12/30/1992 | 12.00\% | 7.63\% | 4.37\% |
| 12/31/1992 | 11.90\% | 7.63\% | 4.27\% |
| 1/12/1993 | 12.00\% | 7.61\% | 4.39\% |
| 1/21/1993 | 11.25\% | 7.59\% | 3.66\% |
| 2/2/1993 | 11.40\% | 7.56\% | 3.84\% |
| 2/15/1993 | 12.30\% | 7.52\% | 4.78\% |
| 2/24/1993 | 11.90\% | 7.49\% | 4.41\% |
| 2/26/1993 | 11.80\% | 7.48\% | 4.32\% |
| 2/26/1993 | 12.20\% | 7.48\% | 4.72\% |
| 4/23/1993 | 11.75\% | 7.29\% | 4.46\% |
| 5/11/1993 | 11.75\% | 7.25\% | 4.50\% |
| 5/14/1993 | 11.50\% | 7.24\% | 4.26\% |
| 5/25/1993 | 11.50\% | 7.23\% | 4.27\% |
| 5/28/1993 | 11.00\% | 7.22\% | 3.78\% |
| 6/3/1993 | 12.00\% | 7.21\% | 4.79\% |
| 6/16/1993 | 11.50\% | 7.19\% | 4.31\% |
| 6/18/1993 | 12.10\% | 7.18\% | 4.92\% |
| 6/25/1993 | 11.67\% | 7.17\% | 4.50\% |
| 7/21/1993 | 11.38\% | 7.10\% | 4.28\% |
| 7/23/1993 | 10.46\% | 7.09\% | 3.37\% |
| 8/24/1993 | 11.50\% | 6.96\% | 4.54\% |
| 9/21/1993 | 10.50\% | 6.81\% | 3.69\% |
| 9/29/1993 | 11.47\% | 6.77\% | 4.70\% |
| 9/30/1993 | 11.60\% | 6.76\% | 4.84\% |
| 11/2/1993 | 10.80\% | 6.61\% | 4.19\% |
| 11/12/1993 | 12.00\% | 6.57\% | 5.43\% |
| 11/26/1993 | 11.00\% | 6.52\% | 4.48\% |
| 12/14/1993 | 10.55\% | 6.48\% | 4.07\% |
| 12/16/1993 | 10.60\% | 6.48\% | 4.12\% |
| 12/21/1993 | 11.30\% | 6.47\% | 4.83\% |
| 1/4/1994 | 10.07\% | 6.45\% | 3.62\% |
| 1/13/1994 | 11.00\% | 6.42\% | 4.58\% |
| 1/21/1994 | 11.00\% | 6.40\% | 4.60\% |
| 1/28/1994 | 11.35\% | 6.39\% | 4.96\% |
| 2/3/1994 | 11.40\% | 6.38\% | 5.02\% |
| 2/17/1994 | 10.60\% | 6.36\% | 4.24\% |
| 2/25/1994 | 11.25\% | 6.36\% | 4.89\% |
| 2/25/1994 | 12.00\% | 6.36\% | 5.64\% |
| 3/1/1994 | 11.00\% | 6.35\% | 4.65\% |
| 3/4/1994 | 11.00\% | 6.35\% | 4.65\% |
| 4/25/1994 | 11.00\% | 6.41\% | 4.59\% |
| 5/10/1994 | 11.75\% | 6.45\% | 5.30\% |
| 5/13/1994 | 10.50\% | 6.46\% | 4.04\% |
| 6/3/1994 | 11.00\% | 6.53\% | 4.47\% |
| 6/27/1994 | 11.40\% | 6.64\% | 4.76\% |
| 8/5/1994 | 12.75\% | 6.87\% | 5.88\% |
| 10/31/1994 | 10.00\% | 7.32\% | 2.68\% |
| 11/9/1994 | 10.85\% | 7.38\% | 3.47\% |
| 11/9/1994 | 10.85\% | 7.38\% | 3.47\% |
| 11/18/1994 | 11.20\% | 7.45\% | 3.75\% |


| 11/22/1994 | 11.60\% | 7.46\% | 4.14\% |
| :---: | :---: | :---: | :---: |
| 11/28/1994 | 11.06\% | 7.49\% | 3.57\% |
| 12/8/1994 | 11.50\% | 7.54\% | 3.96\% |
| 12/8/1994 | 11.70\% | 7.54\% | 4.16\% |
| 12/14/1994 | 10.95\% | 7.56\% | 3.39\% |
| 12/15/1994 | 11.50\% | 7.57\% | 3.93\% |
| 12/19/1994 | 11.50\% | 7.57\% | 3.93\% |
| 12/28/1994 | 12.15\% | 7.61\% | 4.54\% |
| 1/9/1995 | 12.28\% | 7.64\% | 4.64\% |
| 1/31/1995 | 11.00\% | 7.68\% | 3.32\% |
| 2/10/1995 | 12.60\% | 7.70\% | 4.90\% |
| 2/17/1995 | 11.90\% | 7.70\% | 4.20\% |
| 3/9/1995 | 11.50\% | 7.71\% | 3.79\% |
| 3/20/1995 | 12.00\% | 7.72\% | 4.28\% |
| 3/23/1995 | 12.81\% | 7.72\% | 5.09\% |
| 3/29/1995 | 11.60\% | 7.72\% | 3.88\% |
| 4/6/1995 | 11.10\% | 7.71\% | 3.39\% |
| 4/7/1995 | 11.00\% | 7.71\% | 3.29\% |
| 4/19/1995 | 11.00\% | 7.70\% | 3.30\% |
| 5/12/1995 | 11.63\% | 7.68\% | 3.95\% |
| 5/25/1995 | 11.20\% | 7.65\% | 3.55\% |
| 6/9/1995 | 11.25\% | 7.60\% | 3.65\% |
| 6/21/1995 | 12.25\% | 7.56\% | 4.69\% |
| 6/30/1995 | 11.10\% | 7.52\% | 3.58\% |
| 9/11/1995 | 11.30\% | 7.21\% | 4.09\% |
| 9/27/1995 | 11.30\% | 7.13\% | 4.17\% |
| 9/27/1995 | 11.50\% | 7.13\% | 4.37\% |
| 9/27/1995 | 11.75\% | 7.13\% | 4.62\% |
| 9/29/1995 | 11.00\% | 7.12\% | 3.88\% |
| 11/9/1995 | 11.38\% | 6.90\% | 4.48\% |
| 11/9/1995 | 12.36\% | 6.90\% | 5.46\% |
| 11/17/1995 | 11.00\% | 6.86\% | 4.14\% |
| 12/4/1995 | 11.35\% | 6.78\% | 4.57\% |
| 12/11/1995 | 11.40\% | 6.75\% | 4.65\% |
| 12/20/1995 | 11.60\% | 6.70\% | 4.90\% |
| 12/27/1995 | 12.00\% | 6.67\% | 5.33\% |
| 2/5/1996 | 12.25\% | 6.48\% | 5.77\% |
| 3/29/1996 | 10.67\% | 6.42\% | 4.25\% |
| 4/8/1996 | 11.00\% | 6.42\% | 4.58\% |
| 4/11/1996 | 12.59\% | 6.43\% | 6.16\% |
| 4/11/1996 | 12.59\% | 6.43\% | 6.16\% |
| 4/24/1996 | 11.25\% | 6.44\% | 4.81\% |
| 4/30/1996 | 11.00\% | 6.43\% | 4.57\% |
| 5/13/1996 | 11.00\% | 6.44\% | 4.56\% |
| 5/23/1996 | 11.25\% | 6.44\% | 4.81\% |
| 6/25/1996 | 11.25\% | 6.48\% | 4.77\% |
| 6/27/1996 | 11.20\% | 6.48\% | 4.72\% |
| 8/12/1996 | 10.40\% | 6.57\% | 3.83\% |
| 9/27/1996 | 11.00\% | 6.70\% | 4.30\% |
| 10/16/1996 | 12.25\% | 6.76\% | 5.49\% |
| 11/5/1996 | 11.00\% | 6.80\% | 4.20\% |
| 11/26/1996 | 11.30\% | 6.83\% | 4.47\% |
| 12/18/1996 | 11.75\% | 6.83\% | 4.92\% |
| 12/31/1996 | 11.50\% | 6.83\% | 4.67\% |
| 1/3/1997 | 10.70\% | 6.83\% | 3.87\% |
| 2/13/1997 | 11.80\% | 6.82\% | 4.98\% |
| 2/20/1997 | 11.80\% | 6.82\% | 4.98\% |
| 3/31/1997 | 10.02\% | 6.80\% | 3.22\% |
| 4/2/1997 | 11.65\% | 6.80\% | 4.85\% |
| 4/28/1997 | 11.50\% | 6.81\% | 4.69\% |
| 4/29/1997 | 11.70\% | 6.81\% | 4.89\% |
| 7/17/1997 | 12.00\% | 6.77\% | 5.23\% |
| 12/12/1997 | 11.00\% | 6.61\% | 4.39\% |
| 12/23/1997 | 11.12\% | 6.57\% | 4.55\% |
| 2/2/1998 | 12.75\% | 6.40\% | 6.35\% |
| 3/2/1998 | 11.25\% | 6.29\% | 4.96\% |
| 3/6/1998 | 10.75\% | 6.27\% | 4.48\% |
| 3/20/1998 | 10.50\% | 6.23\% | 4.27\% |
| 4/30/1998 | 12.20\% | 6.12\% | 6.08\% |
| 7/10/1998 | 11.40\% | 5.94\% | 5.46\% |
| 9/15/1998 | 11.90\% | 5.78\% | 6.12\% |
| 11/30/1998 | 12.60\% | 5.58\% | 7.02\% |
| 12/10/1998 | 12.20\% | 5.55\% | 6.65\% |
| 12/17/1998 | 12.10\% | 5.52\% | 6.58\% |
| 2/5/1999 | 10.30\% | 5.39\% | 4.91\% |
| 3/4/1999 | 10.50\% | 5.34\% | 5.16\% |
| 4/6/1999 | 10.94\% | 5.32\% | 5.62\% |
| 7/29/1999 | 10.75\% | 5.51\% | 5.24\% |
| 9/23/1999 | 10.75\% | 5.70\% | 5.05\% |


| 11/17/1999 | 11.10\% | 5.89\% | 5.21\% |
| :---: | :---: | :---: | :---: |
| 1/7/2000 | 11.50\% | 6.04\% | 5.46\% |
| 1/7/2000 | 11.50\% | 6.04\% | 5.46\% |
| 2/17/2000 | 10.60\% | 6.17\% | 4.43\% |
| 3/28/2000 | 11.25\% | 6.19\% | 5.06\% |
| 5/24/2000 | 11.00\% | 6.18\% | 4.82\% |
| 7/18/2000 | 12.20\% | 6.16\% | 6.04\% |
| 9/29/2000 | 11.16\% | 6.03\% | 5.13\% |
| 11/28/2000 | 12.90\% | 5.89\% | 7.01\% |
| 11/30/2000 | 12.10\% | 5.88\% | 6.22\% |
| 1/23/2001 | 11.25\% | 5.79\% | 5.46\% |
| 2/8/2001 | 11.50\% | 5.77\% | 5.73\% |
| 5/8/2001 | 10.75\% | 5.62\% | 5.13\% |
| 6/26/2001 | 11.00\% | 5.62\% | 5.38\% |
| 7/25/2001 | 11.02\% | 5.60\% | 5.42\% |
| 7/25/2001 | 11.02\% | 5.60\% | 5.42\% |
| 7/31/2001 | 11.00\% | 5.59\% | 5.41\% |
| 8/31/2001 | 10.50\% | 5.56\% | 4.94\% |
| 9/7/2001 | 10.75\% | 5.55\% | 5.20\% |
| 9/10/2001 | 11.00\% | 5.55\% | 5.45\% |
| 9/20/2001 | 10.00\% | 5.55\% | 4.45\% |
| 10/24/2001 | 10.30\% | 5.54\% | 4.76\% |
| 11/28/2001 | 10.60\% | 5.49\% | 5.11\% |
| 12/3/2001 | 12.88\% | 5.49\% | 7.39\% |
| 12/20/2001 | 12.50\% | 5.50\% | 7.00\% |
| 1/22/2002 | 10.00\% | 5.50\% | 4.50\% |
| 3/27/2002 | 10.10\% | 5.45\% | 4.65\% |
| 4/22/2002 | 11.80\% | 5.45\% | 6.35\% |
| 5/28/2002 | 10.17\% | 5.46\% | 4.71\% |
| 6/10/2002 | 12.00\% | 5.47\% | 6.53\% |
| 6/18/2002 | 11.16\% | 5.48\% | 5.68\% |
| 6/20/2002 | 11.00\% | 5.48\% | 5.52\% |
| 6/20/2002 | 12.30\% | 5.48\% | 6.82\% |
| 7/15/2002 | 11.00\% | 5.47\% | 5.53\% |
| 9/12/2002 | 12.30\% | 5.45\% | 6.85\% |
| 9/26/2002 | 10.45\% | 5.41\% | 5.04\% |
| 12/4/2002 | 11.55\% | 5.29\% | 6.26\% |
| 12/13/2002 | 11.75\% | 5.27\% | 6.48\% |
| 12/20/2002 | 11.40\% | 5.25\% | 6.15\% |
| 1/8/2003 | 11.10\% | 5.19\% | 5.91\% |
| 1/31/2003 | 12.45\% | 5.13\% | 7.32\% |
| 2/28/2003 | 12.30\% | 5.05\% | 7.25\% |
| 3/6/2003 | 10.75\% | 5.03\% | 5.72\% |
| 3/7/2003 | 9.96\% | 5.02\% | 4.94\% |
| 3/20/2003 | 12.00\% | 4.99\% | 7.01\% |
| 4/3/2003 | 12.00\% | 4.96\% | 7.04\% |
| 4/15/2003 | 11.15\% | 4.94\% | 6.21\% |
| 6/25/2003 | 10.75\% | 4.79\% | 5.96\% |
| 6/26/2003 | 10.75\% | 4.79\% | 5.96\% |
| 7/9/2003 | 9.75\% | 4.79\% | 4.96\% |
| 7/16/2003 | 9.75\% | 4.79\% | 4.96\% |
| 7/25/2003 | 9.50\% | 4.80\% | 4.70\% |
| 8/26/2003 | 10.50\% | 4.83\% | 5.67\% |
| 12/17/2003 | 9.85\% | 4.93\% | 4.92\% |
| 12/17/2003 | 10.70\% | 4.93\% | 5.77\% |
| 12/18/2003 | 11.50\% | 4.94\% | 6.56\% |
| 12/19/2003 | 12.00\% | 4.94\% | 7.06\% |
| 12/19/2003 | 12.00\% | 4.94\% | 7.06\% |
| 12/23/2003 | 10.50\% | 4.94\% | 5.56\% |
| 1/13/2004 | 12.00\% | 4.95\% | 7.05\% |
| 3/2/2004 | 10.75\% | 4.98\% | 5.77\% |
| 3/26/2004 | 10.25\% | 5.02\% | 5.23\% |
| 4/5/2004 | 11.25\% | 5.03\% | 6.22\% |
| 5/18/2004 | 10.50\% | 5.07\% | 5.43\% |
| 5/25/2004 | 10.25\% | 5.08\% | 5.17\% |
| 5/27/2004 | 10.25\% | 5.08\% | 5.17\% |
| 6/2/2004 | 11.22\% | 5.08\% | 6.14\% |
| 6/30/2004 | 10.50\% | 5.10\% | 5.40\% |
| 6/30/2004 | 10.50\% | 5.10\% | 5.40\% |
| 7/16/2004 | 11.60\% | 5.11\% | 6.49\% |
| 8/25/2004 | 10.25\% | 5.10\% | 5.15\% |
| 9/9/2004 | 10.40\% | 5.10\% | 5.30\% |
| 11/9/2004 | 10.50\% | 5.06\% | 5.44\% |
| 11/23/2004 | 11.00\% | 5.06\% | 5.94\% |
| 12/14/2004 | 10.97\% | 5.06\% | 5.91\% |
| 12/21/2004 | 11.25\% | 5.07\% | 6.18\% |
| 12/21/2004 | 11.50\% | 5.07\% | 6.43\% |
| 12/22/2004 | 10.70\% | 5.07\% | 5.63\% |
| 12/22/2004 | 11.50\% | 5.07\% | 6.43\% |


| 12/29/2004 | 9.85\% | 5.07\% | 4.78\% |
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| 1/6/2005 | 10.70\% | 5.08\% | 5.62\% |
| 2/18/2005 | 10.30\% | 4.98\% | 5.32\% |
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| 3/10/2005 | 11.00\% | 4.93\% | 6.07\% |
| 3/24/2005 | 10.30\% | 4.90\% | 5.40\% |
| 4/4/2005 | 10.00\% | 4.88\% | 5.12\% |
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| 5/18/2005 | 10.25\% | 4.78\% | 5.47\% |
| 5/25/2005 | 10.75\% | 4.77\% | 5.98\% |
| 5/26/2005 | 9.75\% | 4.76\% | 4.99\% |
| 6/1/2005 | 9.75\% | 4.75\% | 5.00\% |
| 7/19/2005 | 11.50\% | 4.65\% | 6.85\% |
| 8/5/2005 | 11.75\% | 4.62\% | 7.13\% |
| 8/15/2005 | 10.13\% | 4.62\% | 5.51\% |
| 9/28/2005 | 10.00\% | 4.54\% | 5.46\% |
| 10/4/2005 | 10.75\% | 4.54\% | 6.21\% |
| 12/12/2005 | 11.00\% | 4.55\% | 6.45\% |
| 12/13/2005 | 10.75\% | 4.55\% | 6.20\% |
| 12/21/2005 | 10.29\% | 4.55\% | 5.74\% |
| 12/21/2005 | 10.40\% | 4.55\% | 5.85\% |
| 12/22/2005 | 11.00\% | 4.54\% | 6.46\% |
| 12/22/2005 | 11.15\% | 4.54\% | 6.61\% |
| 12/28/2005 | 10.00\% | 4.54\% | 5.46\% |
| 12/28/2005 | 10.00\% | 4.54\% | 5.46\% |
| 1/5/2006 | 11.00\% | 4.53\% | 6.47\% |
| 1/27/2006 | 9.75\% | 4.52\% | 5.23\% |
| 3/3/2006 | 10.39\% | 4.53\% | 5.86\% |
| 4/17/2006 | 10.20\% | 4.61\% | 5.59\% |
| 4/26/2006 | 10.60\% | 4.64\% | 5.96\% |
| 5/17/2006 | 11.60\% | 4.69\% | 6.91\% |
| 6/6/2006 | 10.00\% | 4.74\% | 5.26\% |
| 6/27/2006 | 10.75\% | 4.80\% | 5.95\% |
| 7/6/2006 | 10.20\% | 4.82\% | 5.38\% |
| 7/24/2006 | 9.60\% | 4.86\% | 4.74\% |
| 7/26/2006 | 10.50\% | 4.86\% | 5.64\% |
| 7/28/2006 | 10.05\% | 4.86\% | 5.19\% |
| 8/23/2006 | 9.55\% | 4.89\% | 4.66\% |
| 9/1/2006 | 10.54\% | 4.89\% | 5.65\% |
| 9/14/2006 | 10.00\% | 4.90\% | 5.10\% |
| 10/6/2006 | 9.67\% | 4.92\% | 4.75\% |
| 11/20/2006 | 9.80\% | 4.95\% | 4.85\% |
| 11/21/2006 | 10.08\% | 4.95\% | 5.13\% |
| 11/21/2006 | 10.08\% | 4.95\% | 5.13\% |
| 11/21/2006 | 10.12\% | 4.95\% | 5.17\% |
| 12/1/2006 | 10.25\% | 4.95\% | 5.30\% |
| 12/1/2006 | 10.50\% | 4.95\% | 5.55\% |
| 12/7/2006 | 10.75\% | 4.95\% | 5.80\% |
| 12/21/2006 | 10.90\% | 4.95\% | 5.95\% |
| 12/21/2006 | 11.25\% | 4.95\% | 6.30\% |
| 12/22/2006 | 10.25\% | 4.95\% | 5.30\% |
| 1/5/2007 | 10.00\% | 4.95\% | 5.05\% |
| 1/11/2007 | 10.10\% | 4.95\% | 5.15\% |
| 1/11/2007 | 10.10\% | 4.95\% | 5.15\% |
| 1/11/2007 | 10.90\% | 4.95\% | 5.95\% |
| 1/12/2007 | 10.10\% | 4.95\% | 5.15\% |
| 1/13/2007 | 10.40\% | 4.95\% | 5.45\% |
| 1/19/2007 | 10.80\% | 4.94\% | 5.86\% |
| 3/21/2007 | 11.35\% | 4.87\% | 6.48\% |
| 3/22/2007 | 9.75\% | 4.87\% | 4.88\% |
| 5/15/2007 | 10.00\% | 4.81\% | 5.19\% |
| 5/17/2007 | 10.25\% | 4.81\% | 5.44\% |
| 5/17/2007 | 10.25\% | 4.81\% | 5.44\% |
| 5/22/2007 | 10.20\% | 4.81\% | 5.39\% |
| 5/22/2007 | 10.50\% | 4.81\% | 5.69\% |
| 5/23/2007 | 10.70\% | 4.81\% | 5.89\% |
| 5/25/2007 | 9.67\% | 4.81\% | 4.86\% |
| 6/15/2007 | 9.90\% | 4.82\% | 5.08\% |
| 6/21/2007 | 10.20\% | 4.83\% | 5.37\% |
| 6/22/2007 | 10.50\% | 4.83\% | 5.67\% |
| 6/28/2007 | 10.75\% | 4.84\% | 5.91\% |
| 7/12/2007 | 9.67\% | 4.86\% | 4.81\% |
| 7/19/2007 | 10.00\% | 4.87\% | 5.13\% |
| 7/19/2007 | 10.00\% | 4.87\% | 5.13\% |
| 8/15/2007 | 10.40\% | 4.88\% | 5.52\% |
| 10/9/2007 | 10.00\% | 4.91\% | 5.09\% |
| 10/17/2007 | 9.10\% | 4.91\% | 4.19\% |
| 10/31/2007 | 9.96\% | 4.90\% | 5.06\% |
| 11/29/2007 | 10.90\% | 4.87\% | 6.03\% |


| 12/6/2007 | 10.75\% | 4.86\% | 5.89\% |
| :---: | :---: | :---: | :---: |
| 12/13/2007 | 9.90\% | 4.86\% | 5.04\% |
| 12/13/2007 | 9.96\% | 4.86\% | 5.10\% |
| 12/14/2007 | 10.70\% | 4.86\% | 5.84\% |
| 12/14/2007 | 10.80\% | 4.86\% | 5.94\% |
| 12/19/2007 | 10.20\% | 4.85\% | 5.35\% |
| 12/20/2007 | 10.20\% | 4.85\% | 5.35\% |
| 12/20/2007 | 11.00\% | 4.85\% | 6.15\% |
| 12/28/2007 | 10.25\% | 4.85\% | 5.40\% |
| 12/31/2007 | 11.25\% | 4.85\% | 6.40\% |
| 1/8/2008 | 10.75\% | 4.83\% | 5.92\% |
| 1/17/2008 | 10.75\% | 4.82\% | 5.93\% |
| 1/28/2008 | 9.40\% | 4.80\% | 4.60\% |
| 1/30/2008 | 10.00\% | 4.79\% | 5.21\% |
| 1/31/2008 | 10.71\% | 4.79\% | 5.92\% |
| 2/29/2008 | 10.25\% | 4.75\% | 5.50\% |
| 3/12/2008 | 10.25\% | 4.73\% | 5.52\% |
| 3/25/2008 | 9.10\% | 4.69\% | 4.41\% |
| 3/31/2008 | 12.12\% | 4.67\% | 7.45\% |
| 4/22/2008 | 10.25\% | 4.61\% | 5.64\% |
| 4/24/2008 | 10.10\% | 4.60\% | 5.50\% |
| 5/1/2008 | 10.70\% | 4.59\% | 6.11\% |
| 5/19/2008 | 11.00\% | 4.57\% | 6.43\% |
| 5/27/2008 | 10.00\% | 4.55\% | 5.45\% |
| 6/10/2008 | 10.70\% | 4.54\% | 6.16\% |
| 6/27/2008 | 10.50\% | 4.54\% | 5.96\% |
| 6/27/2008 | 11.04\% | 4.54\% | 6.50\% |
| 7/10/2008 | 10.43\% | 4.52\% | 5.91\% |
| 7/16/2008 | 9.40\% | 4.52\% | 4.88\% |
| 7/30/2008 | 10.80\% | 4.51\% | 6.29\% |
| 7/31/2008 | 10.70\% | 4.51\% | 6.19\% |
| 8/11/2008 | 10.25\% | 4.51\% | 5.74\% |
| 8/26/2008 | 10.18\% | 4.50\% | 5.68\% |
| 9/10/2008 | 10.30\% | 4.50\% | 5.80\% |
| 9/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 9/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 9/24/2008 | 10.65\% | 4.48\% | 6.17\% |
| 9/30/2008 | 10.20\% | 4.48\% | 5.72\% |
| 10/8/2008 | 10.15\% | 4.46\% | 5.69\% |
| 10/15/2008 | 10.10\% | 4.46\% | 5.64\% |
| 11/13/2008 | 10.55\% | 4.45\% | 6.10\% |
| 11/17/2008 | 10.20\% | 4.44\% | 5.76\% |
| 12/1/2008 | 10.25\% | 4.40\% | 5.85\% |
| 12/23/2008 | 11.00\% | 4.27\% | 6.73\% |
| 12/29/2008 | 10.00\% | 4.24\% | 5.76\% |
| 12/29/2008 | 10.20\% | 4.24\% | 5.96\% |
| 12/31/2008 | 10.75\% | 4.22\% | 6.53\% |
| 1/14/2009 | 10.50\% | 4.15\% | 6.35\% |
| 1/14/2009 | 10.60\% | 4.15\% | 6.45\% |
| 1/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 1/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 1/21/2009 | 10.50\% | 4.12\% | 6.38\% |
| 1/27/2009 | 10.76\% | 4.09\% | 6.67\% |
| 1/30/2009 | 10.50\% | 4.08\% | 6.42\% |
| 2/4/2009 | 8.75\% | 4.06\% | 4.69\% |
| 3/4/2009 | 10.50\% | 3.97\% | 6.53\% |
| 3/12/2009 | 11.50\% | 3.93\% | 7.57\% |
| 4/2/2009 | 11.10\% | 3.86\% | 7.24\% |
| 4/21/2009 | 10.61\% | 3.80\% | 6.81\% |
| 4/24/2009 | 10.00\% | 3.79\% | 6.21\% |
| 4/30/2009 | 11.25\% | 3.78\% | 7.47\% |
| 5/4/2009 | 10.74\% | 3.77\% | 6.97\% |
| 5/20/2009 | 10.25\% | 3.75\% | 6.50\% |
| 5/28/2009 | 10.50\% | 3.75\% | 6.75\% |
| 5/29/2009 | 10.50\% | 3.75\% | 6.75\% |
| 6/22/2009 | 10.00\% | 3.77\% | 6.23\% |
| 6/24/2009 | 10.80\% | 3.77\% | 7.03\% |
| 7/8/2009 | 10.63\% | 3.77\% | 6.86\% |
| 7/17/2009 | 10.50\% | 3.78\% | 6.72\% |
| 8/31/2009 | 10.25\% | 3.82\% | 6.43\% |
| 10/14/2009 | 10.70\% | 4.01\% | 6.69\% |
| 10/23/2009 | 10.88\% | 4.05\% | 6.83\% |
| 11/2/2009 | 10.70\% | 4.09\% | 6.61\% |
| 11/3/2009 | 10.70\% | 4.09\% | 6.61\% |
| 11/24/2009 | 10.25\% | 4.15\% | 6.10\% |
| 11/25/2009 | 10.75\% | 4.15\% | 6.60\% |
| 11/30/2009 | 10.35\% | 4.16\% | 6.19\% |
| 12/3/2009 | 10.50\% | 4.17\% | 6.33\% |
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| 12/16/2009 | 10.90\% | 4.21\% | 6.69\% |
| :---: | :---: | :---: | :---: |
| 12/16/2009 | 11.00\% | 4.21\% | 6.79\% |
| 12/18/2009 | 10.40\% | 4.22\% | 6.18\% |
| 12/18/2009 | 10.40\% | 4.22\% | 6.18\% |
| 12/22/2009 | 10.20\% | 4.23\% | 5.97\% |
| 12/22/2009 | 10.40\% | 4.23\% | 6.17\% |
| 12/22/2009 | 10.40\% | 4.23\% | 6.17\% |
| 12/30/2009 | 10.00\% | 4.26\% | 5.74\% |
| 1/4/2010 | 10.80\% | 4.27\% | 6.53\% |
| 1/11/2010 | 11.00\% | 4.30\% | 6.70\% |
| 1/26/2010 | 10.13\% | 4.35\% | 5.78\% |
| 1/27/2010 | 10.40\% | 4.35\% | 6.05\% |
| 1/27/2010 | 10.40\% | 4.35\% | 6.05\% |
| 1/27/2010 | 10.70\% | 4.35\% | 6.35\% |
| 2/9/2010 | 9.80\% | 4.38\% | 5.42\% |
| 2/18/2010 | 10.60\% | 4.40\% | 6.20\% |
| 2/24/2010 | 10.18\% | 4.41\% | 5.77\% |
| 3/2/2010 | 9.63\% | 4.41\% | 5.22\% |
| 3/4/2010 | 10.50\% | 4.41\% | 6.09\% |
| 3/5/2010 | 10.50\% | 4.41\% | 6.09\% |
| 3/11/2010 | 11.90\% | 4.42\% | 7.48\% |
| 3/11/2010 | 12.30\% | 4.42\% | 7.88\% |
| 3/11/2010 | 12.30\% | 4.42\% | 7.88\% |
| 3/17/2010 | 10.00\% | 4.42\% | 5.58\% |
| 3/25/2010 | 10.15\% | 4.42\% | 5.73\% |
| 4/2/2010 | 10.10\% | 4.43\% | 5.67\% |
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| 5/12/2010 | 10.30\% | 4.46\% | 5.84\% |
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| 5/28/2010 | 10.10\% | 4.44\% | 5.66\% |
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| 6/16/2010 | 10.00\% | 4.44\% | 5.56\% |
| 6/28/2010 | 9.67\% | 4.43\% | 5.24\% |
| 6/28/2010 | 10.50\% | 4.43\% | 6.07\% |
| 6/30/2010 | 9.40\% | 4.43\% | 4.97\% |
| 7/1/2010 | 10.25\% | 4.43\% | 5.82\% |
| 7/15/2010 | 10.53\% | 4.43\% | 6.10\% |
| 7/15/2010 | 10.70\% | 4.43\% | 6.27\% |
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| 8/6/2010 | 9.83\% | 4.41\% | 5.42\% |
| 8/25/2010 | 9.90\% | 4.37\% | 5.53\% |
| 9/3/2010 | 10.60\% | 4.35\% | 6.25\% |
| 9/14/2010 | 10.70\% | 4.33\% | 6.37\% |
| 9/16/2010 | 10.00\% | 4.33\% | 5.67\% |
| 9/16/2010 | 10.00\% | 4.33\% | 5.67\% |
| 9/30/2010 | 9.75\% | 4.29\% | 5.46\% |
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| 10/14/2010 | 10.35\% | 4.24\% | 6.11\% |
| 10/28/2010 | 10.70\% | 4.21\% | 6.49\% |
| 11/2/2010 | 10.38\% | 4.20\% | 6.18\% |
| 11/4/2010 | 10.70\% | 4.20\% | 6.50\% |
| 11/19/2010 | 10.20\% | 4.18\% | 6.02\% |
| 11/22/2010 | 10.00\% | 4.18\% | 5.82\% |
| 12/1/2010 | 10.13\% | 4.16\% | 5.97\% |
| 12/6/2010 | 9.86\% | 4.16\% | 5.70\% |
| 12/9/2010 | 10.25\% | 4.15\% | 6.10\% |
| 12/13/2010 | 10.70\% | 4.15\% | 6.55\% |
| 12/14/2010 | 10.13\% | 4.15\% | 5.98\% |
| 12/15/2010 | 10.44\% | 4.15\% | 6.29\% |
| 12/17/2010 | 10.00\% | 4.15\% | 5.85\% |
| 12/20/2010 | 10.60\% | 4.15\% | 6.45\% |
| 12/21/2010 | 10.30\% | 4.15\% | 6.15\% |
| 12/27/2010 | 9.90\% | 4.14\% | 5.76\% |
| 12/29/2010 | 11.15\% | 4.14\% | 7.01\% |
| 1/5/2011 | 10.15\% | 4.13\% | 6.02\% |
| 1/12/2011 | 10.30\% | 4.13\% | 6.17\% |
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| 1/18/2011 | 10.00\% | 4.12\% | 5.88\% |
| 1/20/2011 | 9.30\% | 4.12\% | 5.18\% |
| 1/20/2011 | 10.13\% | 4.12\% | 6.01\% |
| 1/31/2011 | 9.60\% | 4.12\% | 5.48\% |
| 2/3/2011 | 10.00\% | 4.12\% | 5.88\% |
| 2/25/2011 | 10.00\% | 4.14\% | 5.86\% |
| 3/22/2011 | 12.30\% | 4.17\% | 8.13\% |


| 3/22/2011 | 12.30\% | 4.17\% | 8.13\% |
| :---: | :---: | :---: | :---: |
| 3/25/2011 | 9.80\% | 4.18\% | 5.62\% |
| 3/30/2011 | 10.00\% | 4.18\% | 5.82\% |
| 4/12/2011 | 10.00\% | 4.21\% | 5.79\% |
| 4/25/2011 | 10.74\% | 4.23\% | 6.51\% |
| 4/26/2011 | 9.67\% | 4.23\% | 5.44\% |
| 4/27/2011 | 10.40\% | 4.23\% | 6.17\% |
| 5/4/2011 | 10.00\% | 4.24\% | 5.76\% |
| 5/4/2011 | 10.00\% | 4.24\% | 5.76\% |
| 5/13/2011 | 11.35\% | 4.25\% | 7.10\% |
| 5/24/2011 | 10.50\% | 4.27\% | 6.23\% |
| 6/8/2011 | 10.75\% | 4.30\% | 6.45\% |
| 6/16/2011 | 9.20\% | 4.31\% | 4.89\% |
| 6/17/2011 | 9.95\% | 4.31\% | 5.64\% |
| 7/13/2011 | 10.20\% | 4.36\% | 5.84\% |
| 8/1/2011 | 9.20\% | 4.38\% | 4.82\% |
| 8/8/2011 | 10.00\% | 4.38\% | 5.62\% |
| 8/11/2011 | 10.00\% | 4.37\% | 5.63\% |
| 8/12/2011 | 10.35\% | 4.37\% | 5.98\% |
| 8/19/2011 | 10.25\% | 4.36\% | 5.89\% |
| 9/2/2011 | 12.88\% | 4.32\% | 8.56\% |
| 9/22/2011 | 10.00\% | 4.24\% | 5.76\% |
| 10/12/2011 | 10.30\% | 4.14\% | 6.16\% |
| 10/20/2011 | 10.50\% | 4.10\% | 6.40\% |
| 11/30/2011 | 10.90\% | 3.88\% | 7.02\% |
| 12/14/2011 | 10.00\% | 3.80\% | 6.20\% |
| 12/14/2011 | 10.30\% | 3.80\% | 6.50\% |
| 12/20/2011 | 10.20\% | 3.77\% | 6.43\% |
| 12/21/2011 | 10.20\% | 3.76\% | 6.44\% |
| 12/22/2011 | 9.90\% | 3.75\% | 6.15\% |
| 12/22/2011 | 10.40\% | 3.75\% | 6.65\% |
| 12/23/2011 | 10.19\% | 3.75\% | 6.44\% |
| 1/3/2012 | 11.40\% | 3.69\% | 7.71\% |
| 1/25/2012 | 10.50\% | 3.57\% | 6.93\% |
| 1/27/2012 | 10.50\% | 3.56\% | 6.94\% |
| 2/2/2012 | 11.40\% | 3.53\% | 7.87\% |
| 2/15/2012 | 10.20\% | 3.48\% | 6.72\% |
| 2/23/2012 | 9.90\% | 3.44\% | 6.46\% |
| 2/27/2012 | 10.25\% | 3.43\% | 6.82\% |
| 2/29/2012 | 10.40\% | 3.42\% | 6.98\% |
| 3/16/2012 | 12.40\% | 3.36\% | 9.04\% |
| 3/20/2012 | 11.40\% | 3.35\% | 8.05\% |
| 3/23/2012 | 11.40\% | 3.34\% | 8.06\% |
| 3/29/2012 | 10.37\% | 3.32\% | 7.05\% |
| 4/4/2012 | 10.00\% | 3.30\% | 6.70\% |
| 4/26/2012 | 10.00\% | 3.21\% | 6.79\% |
| 5/2/2012 | 10.00\% | 3.19\% | 6.81\% |
| 5/7/2012 | 9.80\% | 3.17\% | 6.63\% |
| 5/15/2012 | 10.00\% | 3.15\% | 6.85\% |
| 5/29/2012 | 10.05\% | 3.11\% | 6.94\% |
| 6/7/2012 | 10.30\% | 3.08\% | 7.22\% |
| 6/14/2012 | 9.40\% | 3.06\% | 6.34\% |
| 6/15/2012 | 10.40\% | 3.06\% | 7.34\% |
| 6/18/2012 | 9.60\% | 3.06\% | 6.54\% |
| 6/19/2012 | 9.25\% | 3.05\% | 6.20\% |
| 6/26/2012 | 10.10\% | 3.04\% | 7.06\% |
| 6/29/2012 | 10.00\% | 3.04\% | 6.96\% |
| 7/9/2012 | 10.20\% | 3.03\% | 7.17\% |
| 7/16/2012 | 9.80\% | 3.02\% | 6.78\% |
| 7/20/2012 | 9.31\% | 3.01\% | 6.30\% |
| 7/20/2012 | 9.81\% | 3.01\% | 6.80\% |
| Average |  |  | 4.33\% |
| Number of Cases |  |  | 1,357 |



| Market Capitalization (\$Mil) [6] |  |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
| Decile | Low |  |  |  |  | High | Size Premium |
| 2 | $\$$ | $6,927.557$ | $\$$ | $15,408.314$ |  |  |  |
| 3 | $\$$ | $3,596.535$ | $\$$ | $6,896.389$ |  |  |  |
| 4 | $\$$ | $2,366.464$ | $\$$ | $3,577.774$ |  |  |  |
| 5 | $\$$ | $1,621.096$ | $\$$ | $2,362.532$ |  |  |  |
| 6 | $\$$ | $1,090.652$ | $\$$ | $1,620.860$ |  |  |  |
| 7 | $\$$ | 683.059 | $\$$ | $1,090.515$ |  |  |  |
| 8 | $\$$ | 422.999 | $\$$ | 682.750 |  |  |  |
| 9 | $\$$ | 206.802 | $\$$ | 422.811 |  |  |  |
| 10 | $\$$ | 1.028 | $\$$ | 206.795 |  |  |  |

Notes:
[1] SEC Form 10-K for the Year Ended December 31, 2011
[2] Application for Increase in Rates
[3] Source: SNL Financial
[4] Source: Bloomberg, 30-day average
[5] Source: Bloomberg, 30-day average
[6] Source: Ibbotson Associates, 2012 Valuation Yearbook, "Key Variables in Estimating Cost of Capital."

Flotation Cost Adjustment

| Company | Date | Shares | Offering Price | Underwriting Discount | Offering Expense | $\begin{gathered} \text { Net } \\ \text { Proceeds Per } \\ \text { Share } \\ \hline \end{gathered}$ | Total <br> Flotation Costs | Gross Equity Issue Before Costs | Net Proceeds | Flotation Cost Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCANA Corporation | 5/11/2010 | 8,222,500 | \$37.00 | \$1.2950 | \$350,000 | \$35.66 | \$10,998,138 | \$304,232,500 | \$293,234,363 | 3.615\% |
| SCANA Corporation | 12/31/2008 | 2,875,000 | \$35.50 | \$0.5325 | \$350,000 | \$34.85 | \$1,880,938 | \$102,062,500 | \$100,181,563 | 1.843\% |
| American Electric Power Company, Inc. | 4/1/2009 | 69,000,000 | \$24.50 | \$0.7350 | \$400,000 | \$23.76 | \$51,115,000 | \$1,690,500,000 | \$1,639,385,000 | 024 |
| American Electric Power Company, Inc. | 2/27/2003 | 57,500,000 | \$20.95 | \$0.6285 | \$550,000 | \$20.31 | \$36,688,750 | \$1,204,625,000 | \$1,167,936,250 | 3.046\% |
| Cleco Corp. | 8/14/2006 | 6,900,000 | \$23.75 | \$0.8900 | \$225,000 | \$22.83 | \$6,366,000 | \$163,875,000 | \$157,509,000 | 3.885\% |
| Cleco Corp. | 11/9/2004 | 2,000,000 | \$18.50 | \$0.6475 | \$200,000 | \$17.75 | \$1,495,000 | \$37,000,000 | \$35,505,000 | 4.041\% |
| Empire District Electric | 12/6/2007 | 3,450,000 | \$23.00 | \$0.9775 | \$250,000 | \$21.95 | \$3,622,375 | \$79,350,000 | \$75,727,625 | 4.565\% |
| Empire District Electric | 6/15/2006 | 3,795,000 | \$20.25 | \$0.8600 | \$250,000 | \$19.32 | \$3,513,700 | \$76,848,750 | \$73,335,050 | 4.572\% |
| Great Plains Energy Inc. | 5/12/2009 | 11,500,000 | \$14.00 | \$0.4900 | \$500,000 | \$13.47 | \$6,135,000 | \$161,000,000 | \$154,865,000 | 3.811\% |
| Great Plains Energy Inc. | 5/17/2006 | 7,002,450 | \$27.50 | \$0.8938 | \$500,000 | \$26.53 | \$6,758,790 | \$192,567,375 | \$185,808,585 | 3.510\% |
| IDACORP, Inc. | 12/9/2004 | 4,025,000 | \$30.00 | \$1.2000 | \$300,000 | \$28.73 | \$5,130,000 | \$120,750,000 | \$115,620,000 | 4.248\% |
| Otter Tail Corporation | 9/19/2008 | 5,175,000 | \$30.00 | \$1.0875 | \$400,000 | \$28.84 | \$6,027,813 | \$155,250,000 | \$149,222,188 | 3.883\% |
| Otter Tail Corporation | 12/7/2004 | 3,335,000 | \$25.45 | \$0.9500 | \$300,000 | \$24.41 | \$3,468,250 | \$84,875,750 | \$81,407,500 | 4.086\% |
| Pinnacle West Capital Corp. | 4/8/2010 | 6,900,000 | \$38.00 | \$1.3300 | \$190,000 | \$36.64 | \$9,367,000 | \$262,200,000 | \$252,833,000 | 3.572\% |
| Pinnacle West Capital Corp. | 4/27/2005 | 6,095,000 | \$42.00 | \$1.3650 | \$250,000 | \$40.59 | \$8,569,675 | \$255,990,000 | \$247,420,325 | 3.348\% |
| PNM Resources, Inc. | 12/6/2006 | 5,750,000 | \$30.79 | \$1.0780 | \$250,000 | \$29.67 | \$6,448,500 | \$177,042,500 | \$170,594,000 | 3.642\% |
| PNM Resources, Inc. | 3/23/2005 | 3,910,000 | \$26.76 | \$0.8697 | \$200,000 | \$25.84 | \$3,600,527 | \$104,631,600 | \$101,031,073 | 3.441\% |
| Portland General Electric Company | 3/5/2009 | 12,477,500 | \$14.10 | \$0.4935 | \$375,000 | \$13.58 | \$6,532,646 | \$175,932,750 | \$169,400,104 | 3.713\% |
| Portland General Electric Company | 6/12/2007 | 23,658,106 | \$26.00 | \$0.7800 | \$700,000 | \$25.19 | \$19,153,323 | \$615,110,756 | \$595,957,433 | 3.114\% |
| Southern Company | 12/6/2000 | 28,750,000 | \$28.50 | \$0.9200 | \$490,000 | \$27.56 | \$26,940,000 | \$819,375,000 | \$792,435,000 | 3.288\% |
| Westar Energy, Inc. | 11/4/2010 | 8,625,000 | \$25.54 | \$0.8939 | \$250,000 | \$24.62 | \$7,959,888 | \$220,282,500 | \$212,322,613 | 3.613\% |
| Westar Energy, Inc. | 5/29/2008 | 6,900,000 | \$24.28 | \$0.8498 | \$325,000 | \$23.38 | \$6,188,620 | \$167,532,000 | \$161,343,380 | 3.694\% |
| Mean |  |  |  |  |  |  | \$10,816,360 | \$325,956,090 |  |  |

Constant Growth Discounted Cash Flow Model Adjusted for Flotation Costs - 30 Day Average Stock Price

|  |  | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average |  | Expected | vidend Yield | Zacks | First Call | Value Line | Average |  | Flotation |
| Company | Ticker | Annualized Dividend | Stock Price | Dividend Yield | Current | Adjusted for Flot. Costs | Earnings Growth | Earnings Growth | Earnings Growth | Earnings Growth | DCF k(e) | Adjusted DCF k(e) |
| American Electric Power Company, Inc. | AEP | \$1.88 | \$42.19 | 4.46\% | 4.54\% | 4.70\% | 3.60\% | 3.37\% | 4.50\% | 3.82\% | 8.36\% | 8.52\% |
| Cleco Corp. | CNL | \$1.35 | \$43.09 | 3.13\% | 3.21\% | 3.32\% | N/A | 3.00\% | 6.50\% | 4.75\% | 7.96\% | 8.07\% |
| Empire District Electric | EDE | \$1.00 | \$21.46 | 4.66\% | 4.85\% | 5.01\% | N/A | 10.20\% | 6.00\% | 8.10\% | 12.95\% | 13.11\% |
| Great Plains Energy Inc. | GXP | \$0.85 | \$22.07 | 3.85\% | 3.98\% | 4.11\% | 7.75\% | 6.50\% | 5.50\% | 6.58\% | 10.56\% | 10.70\% |
| IDACORP, Inc. | IDA | \$1.32 | \$42.56 | 3.10\% | 3.16\% | 3.27\% | 5.00\% | 4.00\% | 2.00\% | 3.67\% | 6.82\% | 6.93\% |
| Otter Tail Corporation | OTTR | \$1.19 | \$23.38 | 5.09\% | 5.38\% | 5.56\% | 5.00\% | 5.00\% | 24.00\% | 11.33\% | 16.71\% | 16.90\% |
| Pinnacle West Capital Corp. | PNW | \$2.10 | \$53.21 | 3.95\% | 4.06\% | 4.20\% | 5.90\% | 6.52\% | 5.00\% | 5.81\% | 9.87\% | 10.01\% |
| PNM Resources, Inc. | PNM | \$0.58 | \$20.43 | 2.84\% | 3.00\% | 3.11\% | 9.30\% | 9.30\% | 16.00\% | 11.53\% | 14.54\% | 14.64\% |
| Portland General Electric Company | POR | \$1.08 | \$27.26 | 3.96\% | 4.05\% | 4.19\% | 4.13\% | 3.63\% | 5.50\% | 4.42\% | 8.47\% | 8.61\% |
| Southern Company | so | \$1.96 | \$47.30 | 4.14\% | 4.25\% | 4.40\% | 5.06\% | 5.38\% | 5.00\% | 5.15\% | 9.40\% | 9.54\% |
| Westar Energy, Inc. | WR | \$1.32 | \$30.37 | 4.35\% | 4.47\% | 4.63\% | 6.09\% | 4.80\% | 6.50\% | 5.80\% | 10.27\% | 10.42\% |
| PROXY GROUP MEAN |  |  |  |  |  |  |  |  |  |  | 10.54\% | 10.68\% |

Notes:
Notes: The proxy group DCF result is adjusted for flotation costs by dividing each company's expected dividend yield by
( 1 - flotation cost). The flotation cost adjustment is derived as the difference between the unadjusted DCF result
and the DCF result adjusted for flotation costs.
[1] Source: Bloomberg Professional
[2] Source: Bloomberg Professional
[3] Equals [1]/ [ 2 ]
(4] Equals [3] $\times(1+0.5 \times[9])$
[5] Equals $[4] /(1-0.0332)$
[6] Source: Zacks
[7] Source: Yahoo! Finance
[8] Source: Value Line
[9] Equals Average([6], [7], [8])
[10] Equals
[10] Equals [4] $+[9]$
[12] Equals average [11] - average [10]

Proxy Group Capital Structure

| Company |  | \% Long-Term Debt |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ticker | 2012Q2 | 2012Q1 | 2011Q4 | 2011Q3 | 2011Q2 | 2011Q1 | 2010Q4 | 2010Q3 | Average |
| American Electric Power Company, Inc. | AEP | 47.82\% | 48.54\% | 47.06\% | 47.29\% | 49.15\% | 49.93\% | 50.02\% | 46.44\% | 48.28\% |
| Cleco Corporation | CNL | 49.62\% | 51.62\% | 51.71\% | 52.48\% | 52.25\% | 53.02\% | 52.67\% | 48.86\% | 51.53\% |
| Empire District Electric Company | EDE | 47.50\% | 47.09\% | 47.71\% | 48.05\% | 49.04\% | 48.97\% | 49.07\% | 49.01\% | 48.31\% |
| Great Plains Energy Inc. | GXP | 50.51\% | 48.14\% | 48.07\% | 48.87\% | 47.00\% | 46.41\% | 47.77\% | 47.66\% | 48.05\% |
| IDACORP, Inc. | IDA | 49.63\% | 49.09\% | 49.41\% | 49.56\% | 51.05\% | 51.16\% | 53.39\% | 53.78\% | 50.88\% |
| Otter Tail Corporation | OTTR | 49.77\% | 49.52\% | 49.72\% | 46.64\% | 46.83\% | 46.76\% | 46.84\% | 47.00\% | 47.88\% |
| Pinnacle West Capital Corporation | PNW | 45.40\% | 45.64\% | 45.54\% | 47.94\% | 47.56\% | 47.43\% | 47.03\% | 47.02\% | 46.70\% |
| PNM Resources, Inc. | PNM | 49.60\% | 49.57\% | 50.07\% | 47.85\% | 48.62\% | 48.45\% | 48.45\% | 47.49\% | 48.76\% |
| Portland General Electric Company | POR | 50.53\% | 50.63\% | 51.06\% | 52.10\% | 52.22\% | 52.26\% | 53.17\% | 53.27\% | 51.91\% |
| Southern Company | SO | 52.78\% | 53.52\% | 52.57\% | 48.86\% | 49.78\% | 49.41\% | 50.73\% | 51.25\% | 51.11\% |
| Westar Energy, Inc. | WR | 40.62\% | 39.95\% | 38.64\% | 39.34\% | 40.38\% | 40.76\% | 40.63\% | 40.52\% | 40.10\% |
| Mean |  | 48.53\% | 48.48\% | 48.32\% | 48.09\% | 48.54\% | 48.60\% | 49.07\% | 48.39\% | 48.50\% |



Proxy Group Capital Structure

| Company | \% Common Equity |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ticker | 2012Q2 | 2012Q1 | 2011Q4 | 2011Q3 | 2011Q2 | 2011Q1 | 2010Q4 | 2010Q3 | Average |
| American Electric Power Company, Inc. | AEP | 52.18\% | 51.46\% | 52.94\% | 52.71\% | 50.85\% | 50.07\% | 49.98\% | 53.56\% | 51.72\% |
| Cleco Corporation | CNL | 50.38\% | 48.38\% | 48.29\% | 47.52\% | 47.75\% | 46.98\% | 47.33\% | 51.14\% | 48.47\% |
| Empire District Electric Company | EDE | 52.50\% | 52.91\% | 52.29\% | 51.95\% | 50.96\% | 51.03\% | 50.93\% | 50.99\% | 51.69\% |
| Great Plains Energy Inc. | GXP | 49.49\% | 51.86\% | 51.93\% | 51.13\% | 53.00\% | 53.59\% | 52.23\% | 52.34\% | 51.95\% |
| IDACORP, Inc. | IDA | 50.37\% | 50.91\% | 50.59\% | 50.44\% | 48.95\% | 48.84\% | 46.61\% | 46.22\% | 49.12\% |
| Otter Tail Corporation | OTTR | 50.23\% | 50.48\% | 50.28\% | 53.36\% | 53.17\% | 53.24\% | 53.16\% | 53.00\% | 52.12\% |
| Pinnacle West Capital Corporation | PNW | 54.60\% | 54.36\% | 54.46\% | 52.06\% | 52.44\% | 52.57\% | 52.97\% | 52.98\% | 53.30\% |
| PNM Resources, Inc. | PNM | 50.40\% | 50.43\% | 49.93\% | 52.15\% | 51.38\% | 51.55\% | 51.55\% | 52.51\% | 51.24\% |
| Portland General Electric Company | POR | 49.47\% | 49.37\% | 48.94\% | 47.90\% | 47.78\% | 47.74\% | 46.83\% | 46.73\% | 48.09\% |
| Southern Company | SO | 47.22\% | 46.48\% | 47.43\% | 51.14\% | 50.22\% | 50.59\% | 49.27\% | 48.75\% | 48.89\% |
| Westar Energy, Inc. | WR | 59.38\% | 60.05\% | 61.36\% | 60.66\% | 59.62\% | 59.24\% | 59.37\% | 59.48\% | 59.90\% |
| Mean |  | 51.47\% | 51.52\% | 51.68\% | 51.91\% | 51.46\% | 51.40\% | 50.93\% | 51.61\% | 51.50\% |


| Operating Company Capital Structure |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \% Common Equity |  |  |  |  |  |  |  |
| Operating Company | Parent | 2012Q2 | 2012Q1 | 2011Q4 | 2011Q3 | 2011Q2 | 2011Q1 | 2010Q4 | 2010Q3 |
| Appalachian Power Company | AEP | 44.73\% | 44.62\% | 44.07\% | 44.19\% | 43.14\% | 41.53\% | 44.21\% | 43.87\% |
| AEP Texas Central Company | AEP | 48.91\% | 45.78\% | 63.77\% | 60.84\% | 47.26\% | 44.99\% | 44.85\% | 44.76\% |
| Indiana Michigan Power Company | AEP | 49.42\% | 49.55\% | 49.13\% | 49.10\% | 49.06\% | 48.86\% | 48.47\% | 46.80\% |
| Kentucky Power Company | AEP | 46.12\% | 45.76\% | 45.61\% | 45.62\% | 45.42\% | 45.50\% | 44.84\% | 44.21\% |
| Ohio Power Company | AEP | 53.94\% | 53.49\% | 52.12\% | 53.92\% | 54.34\% | 54.52\% | 53.43\% | 52.37\% |
| Public Service Company of Oklahoma | AEP | 48.93\% | 48.40\% | 48.52\% | 48.56\% | 47.51\% | 45.21\% | 46.45\% | 46.65\% |
| Southwestern Electric Power Company | AEP | 49.27\% | 48.55\% | 51.85\% | 51.99\% | 50.32\% | 49.58\% | 49.15\% | 49.07\% |
| AEP Texas North Company | AEP | 47.24\% | 47.29\% | 46.93\% | 46.35\% | 46.08\% | 45.88\% | 45.52\% | 45.18\% |
| Kingsport Power Company | AEP | 59.94\% | 60.35\% | 59.56\% | 58.67\% | 59.00\% | 59.12\% | 57.96\% | 100.00\% |
| Wheeling Power Company | AEP | 73.26\% | 70.78\% | 67.87\% | 67.88\% | 66.34\% | 65.53\% | 64.89\% | 62.73\% |
| Cleco Power LLC | CNL | 50.38\% | 48.38\% | 48.29\% | 47.52\% | 47.75\% | 46.98\% | 47.33\% | 51.14\% |
| Empire District Electric Company | EDE | 52.50\% | 52.91\% | 52.29\% | 51.95\% | 50.96\% | 51.03\% | 50.93\% | 50.99\% |
| KCP\&L Greater Missouri Operations Company | GXP | 47.26\% | 52.24\% | 52.28\% | 52.42\% | 51.59\% | 54.52\% | 51.55\% | 51.52\% |
| Kansas City Power \& Light Company | GXP | 51.73\% | 51.48\% | 51.59\% | 49.84\% | 54.41\% | 52.66\% | 52.90\% | 53.16\% |
| Idaho Power Co. | IDA | 50.37\% | 50.91\% | 50.59\% | 50.44\% | 48.95\% | 48.84\% | 46.61\% | 46.22\% |
| Otter Tail Power Company | OTTR | 50.23\% | 50.48\% | 50.28\% | 53.36\% | 53.17\% | 53.24\% | 53.16\% | 53.00\% |
| Arizona Public Service Company | PNW | 54.60\% | 54.36\% | 54.46\% | 52.06\% | 52.44\% | 52.57\% | 52.97\% | 52.98\% |
| Public Service Company of New Mexico | PNM | 50.40\% | 50.43\% | 49.93\% | 52.15\% | 51.38\% | 51.55\% | 51.55\% | 52.51\% |
| Portland General Electric Company | POR | 49.47\% | 49.37\% | 48.94\% | 47.90\% | 47.78\% | 47.74\% | 46.83\% | 46.73\% |
| Georgia Power Company | SO | 47.90\% | 50.17\% | 51.73\% | 51.94\% | 50.73\% | 51.17\% | 51.32\% | 50.22\% |
| Alabama Power Company | SO | 46.81\% | 45.57\% | 46.53\% | 47.29\% | 46.71\% | 46.46\% | 46.54\% | 47.06\% |
| Gulf Power Company | SO | 48.31\% | 48.35\% | 47.61\% | 47.79\% | 47.45\% | 47.52\% | 46.71\% | 45.40\% |
| Mississippi Power Company | SO | 45.88\% | 41.82\% | 43.83\% | 57.54\% | 55.99\% | 57.21\% | 52.51\% | 52.30\% |
| Kansas Gas and Electric Company | WR | 58.30\% | 57.85\% | 57.55\% | 57.70\% | 56.77\% | 56.52\% | 57.00\% | 57.24\% |
| Westar Energy (KPL) | WR | 60.46\% | 62.26\% | 65.18\% | 63.63\% | 62.47\% | 61.96\% | 61.74\% | 61.72\% |


[^0]:    1 Throughout my testimony, I interchangeably use the terms "ROE" and "Cost of Equity."

[^1]:    3 Bluefield Water Works and Improvement Co. v. Public Service Comm'n of West Virginia, 262 U.S. 679, 692 (1923).
    $4 \quad$ Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944).

[^2]:    5 Public Service Comm'n of South Carolina, Docket No. 2009-489-E, Order No. 2010-471 dated July 15,

[^3]:    11 SCANA Corp., 2011 SEC Form 10-K, at 9.

[^4]:    15

[^5]:    22 DCF results are unadjusted (i.e., prior to any adjustment for flotation costs).

[^6]:    Blue Chip Financial Forecasts, Vol. 31, No. 8, August 1, 2012, at 2. Consensus projections of the 30-year Treasury yield for the six quarters ending December 2013. As noted above, the 30 -year Treasury yield ranged from 2.46 percent to 3.22 percent in the 90 trading days ending August 17, 2012.
    Blue Chip Financial Forecasts, Vol. 31, No. 6, June 1, 2012, at 14. Consensus projections of the 30-year Treasury yield for the period 2014-2023.

[^7]:    The regression tendency of Beta coefficients to converge to 1.0 over time has been widely accepted in academic literature and financial practice, and the compensating adjustment made to the Beta coefficient is often known as the Blume adjustment. (See, e.g., Blume, Marshall E., On the Assessment of Risk, The Journal of Finance, Vol. 26, No. 1, March 1971, at 1-10). Please note that Value Line uses a similar adjustment methodology.
    There is no specific time period for the calculation of the Beta coefficient that best balances the need for current data with the desire to smooth out fluctuations from short-term market dynamics. Bloomberg and Value Line use two-year and five-year time periods, respectively. A more near-term calculation of the Beta coefficient enables the analyst to reflect current investor expectations and incorporate the current relationship between the proxy group companies and the market. Note, in the Company's last rate case, Docket No. 2009-489-E, I calculated the Beta coefficient over a six-month period.

[^8]:    44
    Patterson, Cleveland S., Flotation Cost Allowance in Rate of Return Regulation: Comment, The Journal of Finance, Vol. XXXVIII, No. 4, September 1983, at 1337.
    Shannon P. Pratt, Roger J. Grabowski, Cost of Capital: Applications and Examples, $4^{\text {th }}$ ed. (John Wiley \& Sons, Inc., 2010), at 586.

[^9]:    On September 13, 2012 the Federal Reserve announced that, in addition to continuing the maturity extension program announced in June, they would also begin buying mortgage-backed securities at a pace of $\$ 40$ billion per month. See Federal Reserve Press Release, dated September 13, 2012.
    http://www.federalreserve.gov/monetarypolicy/maturityextensionprogram.htm Minutes of the Federal Open Market Committee June 19-20, 2012, at 4.

[^10]:    64
    65
    Correlation of daily returns calculated over a 90 -day period. Source: SNL Financial. High Correlations Could Be Here To Stay, The Wall Street Journal, January 4, 2012. Ibid.

