STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

EnergyNorth Natural Gas, Inc. d/b/a National Grid NH
Docket DG 10-017

Direct Testimony
of
Robert B. Hevert

February 26, 2010

EXECUTIVE SUMMARY

My name is Robert B. Hevert, and I am President of Concentric Energy Advisors, Inc., a consulting firm providing financial and economic advisory services to a large number of energy and utility clients across North America. I have served as an executive and manager with other consulting firms and as a financial officer of a publicly traded natural gas utility company. I have provided testimony regarding strategic and financial matters, including the cost of capital, before several state utility regulatory agencies as well as the Federal Energy Regulatory Commission, and have advised numerous energy and utility clients on a wide range of financial and economic issues, including both asset and corporate-based transactions. The purpose of my Direct Testimony is to present evidence and provide a recommendation regarding the Company's cost of equity (sometimes referred to as the Return on Equity or "ROE"), and its proposed cost of debt.

My recommendation regarding the Company's ROE is based on several analytical approaches including the Constant Growth and Multi-Stage forms of the Discounted Cash Flow ("DCF") model, the Capital Asset Pricing Model ("CAPM"), and the Risk Premium method. I also have considered the effect of various business and operating risks on the Company's cost of equity. Where appropriate, my Direct Testimony addresses positions taken by Staff or adopted by the Commission in the Company's most recent rate proceeding, DG 08-009. Throughout my Direct Testimony, I note the importance of using multiple methodologies to estimate the cost of equity and the need to apply considered judgment in assessing the results of quantitative models. Based on

1 those analyses, I conclude that the Company's cost of equity is in the range of 10.30
2 percent to 11.30 percent, and recommend an equity cost rate of 11.00 percent. I further
3 conclude that the Company's proposed overall Rate of Return of 8.995 percent, which is
4 based on a 50.00 percent equity ratio that was authorized in Order No. 24,777, the
5 Company's proposed 6.99 percent cost of debt (which includes the Company's
6 outstanding long-term debt and the previously approved amortization of call premia of
7 prior debt) and my recommended 11.00 percent Return on Equity, is reasonable and
8 appropriate.

9

10 Finally, through the testimony of Mr. Stavropoulos, the Company has indicated a
11 willingness to enter into an agreement not to seek rate relief for a period of two years
12 after the Commission issues an order in this proceeding. If the Company enters into such
13 an arrangement, that commitment would remove the option to seek recovery of increased
14 capital costs during what is projected to be a rising interest rate environment. As
15 discussed in my Direct Testimony, that commitment, together with the lost ability (and
16 option) to seek relief represents a distinct cost to the Company. While some
17 methodologies would support a premium to the ROE of up to 50 basis points in
18 recognition of that cost, the Company has proposed a premium of 20 basis points.
19 Assuming the 20 basis point premium is adopted, the Company's proposed overall Rate
20 of Return would equal 9.095 percent.

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I. INTRODUCTION

Q. Please state your name, affiliation and business address.

A. My name is Robert B. Hevert, and I am President of Concentric Energy Advisors, Inc. ("Concentric"), located at 293 Boston Post Road West, Suite 500, Marlborough, Massachusetts 01752.

Q. On whose behalf are you submitting this testimony?

A. I am submitting this testimony on behalf of EnergyNorth Natural Gas, Inc. (d/b/a National Grid NH). In my Direct Testimony, I use the terms "National Grid NH" and the "Company" to refer to EnergyNorth Natural Gas.

Q. Please describe your educational background and experience in the energy and utility industries.

A. I received my Bachelors of Science degree in Finance from the University of Delaware, and a Master's degree in Business Administration from the University of Massachusetts. In addition, I hold the Chartered Financial Analyst designation. I have served as an executive and manager with other consulting firms (REED Consulting Group and Navigant Consulting, Inc.), and as a financial officer of Bay State Gas Company. I have provided testimony regarding strategic and financial matters, including the cost of capital, before several state utility regulatory agencies as well as the Federal Energy Regulatory Commission on over 50 occasions. In addition, I have advised numerous energy and utility clients

on a wide range of financial and economic issues including both asset and corporate-based transactions; many of those assignments have included the determination of the cost of capital for valuation purposes. A summary of my professional and educational background is included as Attachment RBH-1.

Q. Please describe Concentric's activities in energy and utility engagements.

A. Concentric provides financial and economic advisory services to a large number of energy and utility clients across North America. Our regulatory economic and market analysis services include utility ratemaking and regulatory advisory services; energy market assessments; market entry and exit analysis; corporate and business unit strategy development; and energy contract negotiations. Our financial advisory activities include merger, acquisition and divestiture assignments; due diligence and valuation assignments; project and corporate finance services; and transaction support services. Concentric also provides litigation support services on a wide range of financial and economic issues for clients throughout North America.

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 a recommendation regarding the Company's Return on Equity ("ROE"), and an assessment of its proposed cost of debt. My analyses and recommendations are

supported by the data presented in Attachments RBH-2 through RBH-12, which have been prepared by me or under my supervision. As to the capital structure to be used in this proceeding, it is my understanding that the Company agreed to a 50.00 percent equity ratio as part of the approval of its merger agreement in 2007.[1] Regarding the cost of debt, it is my understanding that the Company's proposed 6.99 percent rate, which includes long-term debt at a rate of 5.083 percent, together with the unamortized issuance costs and call premia associated with previously retired debt, are consistent with the cost of long term debt that was reviewed and approved by the Commission in Docket No. 06-122 as part of the Settlement filed in support of the Company's petition to consolidate and restructure its debt obligations.[2] (This subject is addressed in more detail in the joint testimony of Frank Lombardo and Michael Adams.)

Q. What are your conclusions regarding the appropriate cost of equity and overall rate of return for the Company?

A. As the Commission noted in Order No. 24,972 (Docket No. DG 08-009), the determination of an appropriate ROE is not an exact science, and requires the exercise of judgment, particularly when the assumptions underlying the financial models used to estimate the cost of equity do not fully conform to the behavior of

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[1] *National Grid plc., National Grid USA, Granite State Electric Company, and KeySpan Corporation, Petition for Approval of Merger Transaction,* Order Regarding Settlement, Order No. 24,777, at 23.

[2] *EnergyNorth Natural Gas Inc, d/b/a KeySpan Energy Delivery, Petition to Consolidate and Increase Short Term Debt Limits,* Order Approving Settlement Agreement, Order No. 24,824, at 11.

1 the capital markets.[3] My Direct Testimony, therefore, considers several
2 quantitative methods, and reflects qualitative assessments of several company-
3 specific, industry-wide, and capital market risks. Those analyses indicate that the
4 Company's cost of equity currently is in the range of 10.30 percent to 11.30
5 percent. Based on the quantitative and qualitative analyses discussed throughout
6 my Direct Testimony, I conclude that an ROE of 11.00 percent is reasonable and
7 appropriate. That ROE, together with the Company's proposed capital structure
8 and cost of debt produces an overall Rate of Return of 8.995 percent.[4]

9

10 **Q. Please provide a brief overview of the analysis that led to your ROE**
11 **recommendation.**

12 A. As discussed in more detail in Section VI, in light of recent capital market
13 conditions, and given the fact that equity analysts and investors tend to use
14 multiple methodologies in developing their return requirements, it is extremely
15 important to consider the results of several analytical approaches in determining
16 the Company's ROE. Therefore, in developing my ROE recommendation I
17 applied the Constant Growth and Multi-Stage forms of the Discounted Cash Flow
18 ("DCF") model, the Capital Asset Pricing Model ("CAPM"), and the Risk
19 Premium approach.

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[3] State of New Hampshire Public Utilities Commission, *Energy North Natural Gas, Inc. D/B/A National Grid NH, Notice of Intent to File Rate Schedules*, Order Granting Delivery Rate Increase, Order No. 24,972, May 29, 2009, at 58.

[4] Please note that this return does not include the proposed 20 basis point Stay-Out Premium; including that premium would increase the overall Rate of Return to 9.095 percent.

Since the cost of equity is an unobservable parameter that must be estimated or inferred based on observable market data, the models used to estimate that cost are subject to various limiting assumptions and methodological constraints. As a consequence, it is unavoidable that ROE estimates require an element of judgment, the application of which is based on the reasoned assessment of both quantitative and qualitative information. In arriving at my ROE recommendation, therefore, I considered several relevant trends and factors, including the recent financial and economic environment, the regulatory environment in which the Company operates, the Company's relatively small size compared to the proxy group, and flotation costs associated with equity issuances. While I did not make any explicit adjustments to my ROE estimates for these factors, I did take them into consideration when determining where the Company's ROE reasonably falls within my range of analytical results.

Q. How is the remainder of your Direct Testimony organized?

A. The remainder of my Direct Testimony is organized in eight sections. In Section III, I discuss the regulatory guidelines and financial considerations pertinent to the development of the cost of equity. Section IV discusses the current capital market conditions and the effect of those conditions on the Company's cost of equity. Section V explains my selection of a proxy group of gas distribution utilities. Section VI describes my analyses and the analytical basis for the recommendation of the appropriate ROE for National Grid NH. Section VII provides a discussion of specific business risks that have a direct bearing on the ROE to be authorized

for the Company in this case. Section VIII discusses the proposed Stay-out Premium, Section IX briefly discusses the Company's cost of debt, and Section X summarizes my conclusions and recommendations.

III. REGULATORY GUIDELINES AND FINANCIAL CONSIDERATIONS

Q. Please describe the guiding principles to be used in establishing the cost of capital for a regulated utility.

A. The United States Supreme Court's *Hope* and *Bluefield* decisions established the basis for the current standards for determining the fairness or reasonableness of a utility's allowed ROE. Among the standards established by the Court in those cases are: (1) consistency with other businesses having similar or comparable risks; (2) adequacy of the return to support credit quality and access to capital; and (3) the specific means of arriving at a fair return are not important, only that the end result leads to just and reasonable rates.[5]

Q. Has the New Hampshire Public Utilities Commission (the "Commission") provided similar guidance in establishing the appropriate return on common equity?

A. Yes. The Commission's decision in National Grid NH's last rate case filing indicates that the Commission adheres to the capital attraction standard articulated

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[5] *Bluefield Waterworks & Improvement Co., v. Public Service Commission of West Virginia,* 262 U.S. 679 (1923); *Federal Power Commission v. Hope Natural Gas Co.,* 320 U.S. 591 (1944).

in the *Hope* and *Bluefield* decisions.[6] That Order also states that the Commission is:

> [B]ound to set a rate of return that falls within a zone of reasonableness, neither so low to result in a confiscation of company property, nor so high as to result in extortionate charges to customers. A rate falling within the zone should, at a minimum, be sufficient to yield the cost of debt and equity capital necessary to provide the assets required for the discharge of the company's responsibility.[7]

In my view, that objective is best satisfied by using multiple analytical methodologies to establish the range, and considering relevant, observable data in determining where within that range the Company's return falls.

Q. Why is it important for a utility to have the opportunity to earn a return that is adequate to attract equity capital at reasonable terms?

A. There is a long history of precedent regarding the allowed return on equity, the role of capital structure, and the resulting cost of capital in the establishment of just and reasonable rates for utility services. Among the themes common to many such decisions is the principle that a utility's cost of capital (including its capital structure and allowed return on common equity) must be reflective of other enterprises having comparable risks acting independently in the financial markets. As noted elsewhere in my Direct Testimony, a return that is adequate to attract

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[6] State of New Hampshire Public Utilities Commission, *Energy North Natural Gas, Inc. D/B/A National Grid NH, Notice of Intent to File Rate Schedules*, Order Granting Delivery Rate Increase, Order No. 24,972, May 29, 2009, at 55.

[7] *Ibid.*, at 54. *See also*, Appeal of Conservation Law Foundation, 127 N.H. 606, 635 (1986)

capital at reasonable terms enables the Company to provide safe, reliable natural gas service while maintaining its financial integrity. That return should be commensurate with the returns expected elsewhere in the market for investments of equivalent risk. If it is not, debt and equity investors will seek alternative investment opportunities for which the expected return reflects the perceived risks, thereby impairing the Company's ability to attract capital at reasonable cost rates. The consequence of the Commission's order in this case, therefore, should be rates that provide the Company with the opportunity to earn a return on equity that is: (1) adequate to attract capital at reasonable terms, thereby enabling it to continue to provide safe, reliable natural gas service; (2) sufficient to ensure its financial integrity; and (3) commensurate with returns on investments in enterprises having corresponding risks. To the extent the Company is provided the opportunity to earn its market-based cost of capital, neither customers nor shareholders are disadvantaged.

While the "capital attraction" and "financial integrity" standards are important principles in normal economic conditions, the practical implications of those standards have become even more pronounced as a result of the recent financial market dislocation. As discussed in more detail in Section IV, the constrained capital availability, increased debt costs, and volatile equity valuations that resulted from the financial market crisis have intensified the focus on the nature of the regulatory environment, the importance of maintaining a strong financial

profile, and the ability of utilities to efficiently access both the debt and equity markets.

Q. How does the regulatory environment in which a utility operates affect its access to and cost of capital?

A. The regulatory environment can significantly affect both the access to, and cost of capital in several ways. First, the proportion and cost of debt capital available to utility companies are influenced by the rating agencies' assessment of the regulatory environment. As noted by Moody's Investor Services ("Moody's"), "the predictability and supportiveness of the regulatory framework in which a regulated utility operates is a key credit consideration and the one that differentiates the industry from most other corporate sectors."[8] Moody's further noted that:

> For a regulated utility company, we consider the characteristics of the regulatory environment in which it operates. These include how developed the regulatory framework is; its track record for predictability and stability in terms of decision making; and the strength of the regulator's authority over utility regulatory issues. A utility operating in a stable, reliable, and highly predictable regulatory environment will be scored higher on this factor than a utility operating in a regulatory environment that exhibits a high degree of uncertainty or unpredictability. Those utilities operating in a less developed regulatory framework or one that is characterized by a high degree of political intervention in the regulatory process will receive the lowest scores on this factor.[9]

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[8] Moody's Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 6.
[9] *Ibid.*

1 Standard & Poor's ("S&P") notes that regulatory commissions should eliminate,
2 or at least greatly reduce, the issue of rate-case lag.[10] Moody's agrees that timely
3 cost recovery is an important determinant of credit quality, stating that "[t]he
4 ability to recover prudently incurred costs in a timely manner is perhaps the single
5 most important credit consideration for regulated utilities, as the lack of timely
6 recovery of such costs has caused financial stress for utilities on several
7 occasions"[11] Similarly, FitchRatings ("Fitch") notes that in the current
8 environment of rising costs, utilities will require more frequent rate increases to
9 maintain financial results,[12] resulting in further exposure to regulatory risks.
10
11 It also is important to recognize that regulatory decisions regarding the authorized
12 ROE and capital structure have direct consequences for the subject utility's
13 internal cash flow generation (sometimes referred to as "Funds Flow from
14 Operations", or "FFO"). Since credit ratings are intended to reflect the ability to
15 fund financial obligations, the ability to internally generate the cash flows
16 required to meet those obligations (and to provide an additional amount for
17 unexpected events) is of critical importance to debt investors. Two of the most
18 important metrics used to assess that ability are the ratios of FFO to debt, and
19 FFO to interest expense, both of which are directly affected by regulatory
20 decisions regarding the appropriate rate of return, and capital structure.

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[10] Standard and Poor's, *Assessing Vertically Integrated Utilities' Business Risk Drivers*, U.S. Utilities and Power Commentary, November 2006, at 10.
[11] Moody's, Global Infrastructure Finance, *Regulated Electric and Gas Utilities*, August 2009, at 7.
[12] FitchRatings, *U.S. Utilities, Power, and Gas 2010 Outlook*, December 4, 2009, at 1.

Just as regulatory policy and decisions have a direct bearing on the subject utility's financial profile and, therefore, its cost of debt, equity investors also consider regulatory risks in determining their required return (that is, the cost of equity). To that point, in a recent report, Barclays Capital ("Barclays") ranked 49 regulatory jurisdictions (including FERC) according to five categories which stratify those jurisdictions from the lowest to highest cost of capital. Among the factors considered in assigning jurisdictions to the various categories are the level of authorized ROEs, and a "Subjective Investor Friendliness Rating." Barclays' "Tier 1" is the "Lowest Cost of Capital" states and Barclays' considers "Tier 5" to be the "Highest Cost of Capital" states. Barclays' ranks New Hampshire as a "Tier 4" state.[13]

Similarly, Regulatory Research Associates ("RRA") rates regulatory jurisdictions from the perspective of investors, and assigns ratings of Above Average, Average, or Below Average. RRA further distinguishes jurisdictions within those respective categories by applying ratings of 1, 2 or 3, with a rating of "1" being the strongest. In describing its ranking system, RRA notes that:

> [t]he evaluations are assigned from an investor perspective and indicate the relative regulatory risk associated with securities issued by the jurisdiction's utilities. The evaluation reflects our assessment of the probable level and quality of earnings to be realized by the state's utilities as a result of regulatory, legislative, and court actions.[14]

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[13] Barclays Capital Equity Research, *Utilities Capital Management*, July 16, 2009, at 25.
[14] www.snl.com/interactivex/CommissionProfiles.aspx

New Hampshire (together with nine other jurisdictions) currently is rated Average/3 by RRA; only eight other jurisdictions received a lower rating. As discussed in more detail later in my Direct Testimony, rankings such as those provided by Barclays and RRA are observable and meaningful indicators of the financial community's view of the regulatory risks faced by utilities.

Q. What are your conclusions regarding the relationship between the regulatory environment and investors' return requirements?

A. There is little question that the regulatory environment is one of the most important issues considered by both debt and equity investors in assessing the risks and prospects of utility companies. From the perspective of debt investors, the authorized return should enable the Company to generate the cash flow needed to meet its near term financial obligations, make the capital investments needed to maintain and expand its system, and maintain sufficient levels of liquidity to fund unexpected events. That financial liquidity must be derived not only from internally generated funds, but also by efficient access to capital markets. Moreover, because fixed income investors have many investment alternatives available, even within a given market sector, the Company's credit profile must be adequate on a relative basis to ensure its ability to attract capital when and as needed.

From the equity perspective, the authorized return must be adequate to provide a risk-comparable return on the equity portion of the Company's capital investments. Because equity investors are the residual claimants on the Company's cash flows, (which is to say that the equity return is subordinate to interest payments) they are particularly concerned with regulatory uncertainty and its effect on future cash flows. As with fixed income investors, equity investors have the option to invest in a variety of utility companies, and therefore will require higher returns for entities that operate in comparatively high risk jurisdictions.

I recognize that in arriving at its determination regarding the authorized return in this proceeding, the Commission must balance the interest of customers and investors. That balance, however, should recognize that in the long run, customers benefit from a financially sound utility. Consequently, it is extremely important that the Commission's decision regarding the Company's Rate of Return is made with a full understanding of current market realities, and the consequences of its determination for both customers and investors.

1 **IV. CAPITAL MARKET ENVIRONMENT**

2 **Q. How Do Economic Conditions Influence the Cost of Capital and Return on**
3 **Common Equity?**

4 A. The required cost of capital, including the ROE, is a function of prevailing and
5 expected market conditions. Consistent with the *Hope* and *Bluefield* decisions,
6 the authorized ROE for a public utility should allow the company to attract
7 investor capital at reasonable cost under a variety of economic and financial
8 market conditions.

9

10 **Q. How have the recent capital market conditions affected the cost of capital?**

11 A. The widely discussed financial market crisis and the following recession led to a
12 general decrease in the availability of, and an increase in, the cost of both debt
13 and equity capital for all market sectors, including utilities. While these
14 conditions have moderated since early 2009, fixed income investors continue to
15 be concerned with the risks associated with a diminished financial profile. A
16 directly observable measure of the increased cost of debt capital for utilities is the
17 level of credit spreads (*i.e.*, the difference between the yield on corporate debt and
18 the yield on equivalent term Treasury securities). As shown in Table 1 (below),
19 the difference in credit spreads between A and Baa-rated (Moody's) utility debt
20 since the beginning of 2007 is approximately two times the average difference
21 from 2002 through 2006.

Table 1: Incremental Credit Spreads on A and Baa Rated Utility Bond Indices[15]

	Average 2002 - 2006	Average 2007 - Present	Current 6 Month Avg.	Current 3 Month Avg.
A-Rated Utility Bond Credit Spread	1.43%	1.80%	1.31%	1.26%
Baa-Rated Utility Bond Credit Spread	1.76%	2.45%	1.85%	1.73%
Difference In Credit Spreads	0.33%	0.65%	0.54%	0.47%
Note: Credit spreads measured against 30-year Treasury Bond yield				

The combined effects of regulatory lag, uncertain capital cost recovery, and heightened levels of risk aversion also have been noted by equity analysts. As Barclays observed, "[i]n the long term, structural headwinds should persist for regulated utilities, owing to risks associated with capital acquisition, construction execution, and regulatory recovery in a rising rate-base environment."[16] In that respect, both the Dow Jones Utility Average and the proxy group used in my analyses considerably under-performed the general market during the 2009 market rally (*see* Table 2, below).

Table 2: Dow Jones Industrial Average, Dow Jones Utility Average, and Proxy Group Average Price Performance (2009)

	DJIA	DJUA	Proxy Group Average
2009[17]	18.82%	7.35%	0.93%

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15 Source: Bloomberg. Data represents the average for the noted periods. Data represents period ended January 29, 2010.

16 Barclays Capital Equity Research, *Utilities Capital Management*, July 16, 2009, at 5.

17 December 31, 2008 – December 31, 2009.

1 **Q. What conclusions can be drawn from that data?**

2 A. The principal conclusion is that while certain capital market indices have
3 moderated since the height of the financial crisis, both debt and equity investors
4 remain concerned with the risks associated with a diminished financial profile.
5 Under such conditions, regulatory policies that are perceived as unsupportive of
6 credit quality may well add to ratings pressure. To the extent that is the case, the
7 Commission's decision in this proceeding would have a direct bearing on the
8 Company's overall cost of capital.

9

10 **Q. In the last National Grid NH rate case filing, the Staff witness observed that**
11 **economic conditions in New Hampshire were favorable in comparison to the**
12 **remainder of the U.S. Do you agree with that conclusion?**

13 A. While I do not dispute the statistics cited by Staff, I note that there are other
14 measures of economic growth and stability in which New Hampshire has lagged
15 the New England region, and the nation as a whole. For example, Staff cited a
16 coincident index published monthly by the Philadelphia Federal Reserve Bank
17 known as the "Economic Activity Index" that measures one component of
18 economic activity for every state in the U.S.[18] However, as discussed in more
19 detail below, the long-term trend in economic growth has not been favorable for
20 New Hampshire when compared to the rest of the country, and the Economic

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[18] *See* Direct Testimony of Pradip K. Chattopadhyay, Docket No. DG 08-009, October 31, 2008, at 18-19.

Activity Index does not present a complete picture of economic conditions across the country.

Q. How do other measures of economic conditions in New Hampshire compare to the remainder of the U.S. and to those in which the companies in your proxy group operate?

A. As shown in Table 3, economic growth in New Hampshire's state domestic product significantly lagged behind the growth rate of Gross Domestic Product ("GDP") for the U.S. in three of the last four years. The cumulative effect is that U.S. GDP grew by 8.86 percent from 2005 through 2008, while New Hampshire GDP grew by only 5.82 percent. Compared to the states served by the companies in my proxy group, New Hampshire has also lagged behind in economic growth in three of the last four reported years. The cumulative growth in the proxy group states was 7.90 percent from 2005 through 2008, which is more than 200 basis points greater than economic growth in New Hampshire.

Table 3: Real GDP Growth (2005 – 2008)[19]

	2005	2006	2007	2008	Calculated Growth
U.S.	3.10%	2.80%	2.00%	0.70%	8.86%
New Hampshire	1.60%	1.50%	0.80%	1.80%	5.82%
Proxy Group	3.40%	2.30%	1.50%	0.50%	7.90%

[19] Bureau of Economic Analysis, Table 1: Real GDP by State, June 2009.

1 Additionally, the Home Price Index in New Hampshire declined by 5.20 percent
2 for the twelve months ending September 30, 2009, which is more than the decline
3 experienced in either the New England region (4.00 percent decline) or the U.S.
4 overall (4.20 percent decline). Home prices are an important economic indicator
5 because they influence consumer confidence, and suggest that the supply of
6 available houses continues to exceed the demand for homes in New Hampshire.
7
8 As to measures of unemployment, the average weekly initial claims for
9 unemployment in New Hampshire increased by 37.80 percent in October 2009, as
10 compared with the New England average increase of 6.40 percent.[20] Moreover,
11 from September 2008 through December 2009, the unemployment rate in New
12 Hampshire increased by approximately 80.00 percent (from 3.90 percent to 7.00
13 percent), while the unemployment rate in New England and the U.S. increased by
14 55.00 percent (5.80 percent to 9.00 percent) and 61.00 percent (6.20 percent to
15 10.00 percent), respectively.[21] While it is true that the unemployment rate in New
16 Hampshire remains below the national average, the increase in unemployment
17 during the financial crisis was substantially greater in New Hampshire than the
18 New England region, and the nation.
19

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[20] Federal Reserve Bank of Boston, Monthly Economic Update - State of New Hampshire, December 2, 2009.

[21] Federal Reserve Bank of Boston, Seasonally Adjusted Unemployment Rates.

Finally, the Economic Activity Index on which the Staff witness relied does not provide a broad picture of economic activity; rather, it concentrates on labor market conditions. According to the Philadelphia Federal Reserve, the Economic Activity Index is derived from four labor market indicators: total nonfarm employment; unemployment rates; average hours worked in manufacturing; and wage and salary disbursements.[22] Because this index only considers labor market activity, and excludes indicators such as Real GDP Growth, Initial Claims for Unemployment and the Home Price Index, it would not be appropriate to rely exclusively on the Economic Activity Index to conclude that New Hampshire's overall economy was outperforming the remainder of the country.

Q. Have you reviewed any commentary regarding the relative performance of the New Hampshire economy?

A. Yes. A June 2009 report by the New Hampshire Employment Security, Economic and Labor Market Information Bureau described the then-current economic circumstances in New Hampshire as follows:

> In the Economic Analysis Report for 2008 New Hampshire's economic situation was described as "steady in light of the highly publicized economic difficulties facing the nation." But that situation has changed significantly, as New Hampshire was not able to withstand the external pressures from a global recession. Late in 2008, after the financial crisis hit Wall Street, the forces of globalization caused much of the world to become victim of a

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[22] Source: http://www.philadelphiafed.org/econ/stateindexes/index.html

> recession as well. The current economic downturn has shown that demand for goods and services are interconnected worldwide.[23]

Q. What conclusions do you draw from these analyses?

A. First, it is important to recognize that the assessment of market conditions must be made in the context of multiple indices since any single measure may provide incomplete or misleading conclusions. It would be inappropriate, for example, to view the current level of Treasury yields as indicative of a lower cost of capital when the persistently high credit spreads between A and Baa-rated utility bonds suggest continuing high levels of risk aversion and an increased cost for higher risk investments. Moreover, as a result of the recent capital market dislocation, it is extremely important to assess the reasonableness of financial model results in the context of observable market data. To the extent that certain estimates are incompatible with such benchmarks, or inconsistent with basic financial principles, it is appropriate to consider whether alternative estimation techniques are likely to provide more meaningful and reliable results.

The same principle holds true when drawing conclusions regarding investors' views of the risks associated with general economic conditions in New Hampshire relative to the New England region, or the nation as a whole. A more comprehensive view of economic data indicates that in certain important respects,

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[23] New Hampshire Employment Security, Economic and Labor Market Information Bureau, *Where Are We Now? New Hampshire's Economy in 2009*, June 2009, at 1.

New Hampshire lags both regional and national performance. On balance it is not clear that utility investors would consider New Hampshire to be a comparatively "low risk" environment. In any event, the relatively high level of regulatory risk perceived by the financial community may well outweigh any marginal benefit that may be attributed to specific macroeconomic indicators.

V. PROXY GROUP SELECTION

Q. Please explain why you have used a group of proxy companies to determine the cost of equity for National Grid NH.

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 aggregate value of a given company is equal to the market value weighted average of the 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 National Grid NH, a rate-regulated, wholly-owned subsidiary of National Grid USA. Since the ROE is a market-based concept, and given that National Grid NH is not publicly traded, it is necessary to establish a group of companies that are both publicly traded and comparable to National Grid NH in certain fundamental business and financial respects to serve as its "proxy" in the ROE estimation process.

Even if National Grid NH were a publicly traded entity, it is possible that transitory events could bias its market value in one way or another over a given period of time. A significant benefit of using a proxy group, therefore, is that it serves to attenuate the effects of anomalous events that may be associated with any one company. As discussed later in my Direct Testimony, the proxy companies used in my analyses all possess a set of operating and risk characteristics that are substantially comparable to National Grid NH, and thus provide a reasonable basis for the derivation and assessment of ROE estimates.

The importance of selecting a proxy group that is similar in overall financial and business risk to the subject company was endorsed by the United States Court of Appeals for the District of Columbia (the "Court of Appeals") in the *Petal Gas Storage* decision. In that decision, the Court of Appeals acknowledged that in developing a proxy group, the goal is to rely on companies that are of similar risk to the subject company:

> That proxy group arrangements must be risk-appropriate is the common theme in each argument. The principle is well-established. *See Hope Natural Gas Co.*, 320 U.S. at 603 ("[T]he return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks."); *CAPP I*, 254 F.3d at 293 ("[A] utility must offer a risk-adjusted expected rate of return sufficient to attract investors."). The principle captures what proxy groups do, namely, provide market-determined stock and dividend figures from public companies comparable to a target company for which those figures are unavailable. *CAPP I*, 254 F.3d at 293–94. Market determined stock figures reflect a company's risk level and, when combined

> with dividend values, permit calculation of the "risk-adjusted expected rate of return sufficient to attract investors."[24]
>
> ***
>
> What matters is that the overall proxy group arrangement makes sense in terms of relative risk and, even more importantly, in terms of the statutory command to set "just and reasonable" rates, 15 U.S.C. § 717c, that are "commensurate with returns on investments in other enterprises having corresponding risks" and "sufficient to assure confidence in the financial integrity of the enterprise . . . [and] maintain its credit and . . . attract capital," *Hope Natural Gas Co.*, 320 U.S. at 603.[25]

Thus, regulatory commissions and analysts alike recognize the importance of developing a proxy group that adequately represents the ongoing risks and prospects of the subject company.

Q. Does the rigorous selection of a proxy group suggest that analytical results will be tightly clustered around average (*i.e.*, mean) results?

A. Not necessarily. As discussed in greater detail in Section VI, the DCF approach is based on the theory that a stock's current price represents the present value of its future expected cash flows. For example, 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.

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[24] *Petal Gas Storage v. FERC*, 496 F.3d 695, 699 (D.C. Cir. 2007).
[25] *Ibid.*, at 700.

At issue, then, is how to select an ROE estimate in the context of that range. As discussed throughout my Direct Testimony, that determination necessarily must be based on an assessment of the company-specific risks relative to the proxy group, and the informed judgment and experience of the analyst.

Q. Please provide a brief profile of National Grid NH.

A. National Grid NH provides natural gas distribution service to approximately 86,000 residential and business customers in New Hampshire. The Company is a direct subsidiary of KeySpan New England, LLC, which in turn is held by KeySpan Corporation (which is held by National Grid USA). KeySpan Corporation currently has Long Term Issuer credit ratings of A- from S&P and FitchRatings, and Baa1 from Moody's. National Grid USA (the Company's ultimate domestic parent) currently has Long Term Issuer credit ratings of A- and A3 from S&P and Moody's, respectively.

As discussed later in my Direct Testimony, I consider the profile of the Company and the financial and operating risks of the Company in my final recommendation for the cost of equity. In my risk assessment, I consider the Company's risk relative to the proxy group based on National Grid NH as a stand-alone entity. While I generally assume that National Grid NH would receive a credit rating comparable to KeySpan Corporation, for reasons discussed throughout my Direct

Testimony, that assumption may be conservative as it relates to the determination of the Company's cost of equity.

Q. How did you select the companies included in your proxy group?

A. The proxy group was selected based on the following criteria:

- I began with the group of 12 companies that currently are classified as Natural Gas Utilities by Value Line. Those companies include: AGL Resources, Atmos Energy, Laclede Group, New Jersey Resources, NICOR, Inc., NiSource Inc., Northwest Natural Gas, Piedmont Natural Gas, South Jersey Industries, Southwest Gas, UGI Corp., and WGL Holdings, Inc.;
- I eliminated companies that are not covered by at least two utility industry equity analysts;
- I eliminated companies that did not have senior bond and/or corporate credit ratings of BBB- to AA by Standard and Poor's;
- To incorporate companies that are primarily regulated gas distribution utilities, I have only included companies with at least 60.00 percent of operating income derived from regulated natural gas utility operations; and
- I eliminated companies that were involved in mergers or acquisitions.

Q. Based on those criteria, what was the composition of your proxy group?

A. The criteria discussed above resulted in a proxy group consisting of the eight companies provided in Table 4 (below).

Table 4: Preliminary Proxy Group

Company	Ticker
AGL Resources	AGL
Laclede Group	LG
NICOR, Inc.	GAS
Northwest Natural Gas	NWN
Piedmont Natural Gas	PNY
South Jersey Industries	SJI
Southwest Gas Corp.	SWX
WGL Holdings, Inc.	WGL

Q. Do you believe that a total of eight companies constitutes a sufficiently large proxy group?

A. Yes, I do. The analyses performed in estimating the ROE are more likely to be representative of the subject utility's cost of equity to the extent that the chosen proxy companies are fundamentally comparable to the subject utility. Because all analysts use some form of screening process to arrive at a proxy group, the group, by definition, is not randomly drawn from a larger population. Consequently, there is no reason to place more reliance on the quantitative results of a larger proxy group simply by virtue of the resulting larger number of observations.

Moreover, because I am using market-based data, my analytical results will not necessarily be tightly clustered around a central point. Results that may be

somewhat dispersed, however, do not suggest that the screening approach is inappropriate or the results less meaningful. Further, including companies whose fundamental comparability is tenuous at best, simply for the purpose of expanding the number of observations does not add relevant information to the analysis. To that point, in 2004, the Commission recognized that comparability is more important than the size of the proxy group:

> [T]he DCF is an economic theory for which a more comparable sample, rather than a larger sample, produces results that are more likely to be representative of the subject utility. The size of the sample is irrelevant when, as here, the sample is not random.[26]

Q. Are you aware that in the Company's recent rate decision the Commission accepted the Staff witness's elimination of companies if the percentage of regulated assets was less than 85.00 percent?

A. Yes, I am. As a preliminary matter, I agree that when developing a proxy group for National Grid NH, it is important to focus attention on whether the company is primarily involved in the gas distribution business, which has different risks than, for example, a natural gas transmission pipeline, or an unregulated trading and marketing company. Rather than applying a screen based on the percentage of regulated assets relative to total assets, however, I believe it is better to focus on the proportion of income derived from natural gas distribution operations. In my experience, investors rely on measures of earnings (*e.g.*, the Price/Earnings ratio)

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[26] Re: Verizon New Hampshire, 232 P.U.R. 4th 24 (N.H. P.U.C., 2004).

1 and cash flow (such as the ratio of Enterprise Value to EBITDA[27]) when assessing
2 the relative value of equity securities. Moreover, there is not necessarily a direct
3 relationship between identifiable assets and cash flow generation. In the case of
4 wholesale and retail trading, for example, cash or cash equivalents held for the
5 purpose of collateral requirements may not always be identified as "invested
6 assets", yet they are integral to those operations.

7

8 The use of operating income as the measure of operations derived from individual
9 business segments also is consistent with the methodology relied upon by credit
10 rating agencies to distinguish among operating units. In its recent *Industry Survey*
11 *of the Natural Gas Distribution Industry,* for example, Standard & Poor's
12 identified the percentage of total company operations derived from natural gas
13 utility operations by reference to operating income, as opposed to assets.[28]
14 Similarly, utility companies themselves look to measures of earnings in
15 identifying and assessing business unit operations. AGL Resources, for example,
16 has stated that it "evaluates segment performance using the measures of operating
17 margin and EBIT (Earnings Before Interest and Taxes), which include the effects
18 of corporate expense allocations."[29] Consequently, it is my view that the

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27 Enterprise Value is generally equal to the market value of a company's equity plus the market value of its debt. EBITDA (Earnings Before Interest, Taxes, Depreciation, Amortization) is considered to be a measure of cash flow.

28 Standard & Poor's *Industry Survey, Natural Gas Distribution*, January 14, 2010, at 9.

29 AGL Resources, Inc., Securities and Exchange Commission Form 10-K for the Fiscal Year ended December 31, 2009, at 24. Clarification added.

percentage of net income derived from regulated natural gas operations is the more appropriate screening criterion.

As a practical matter, the screening criteria noted above produce a proxy group that is highly consistent with the group developed by Staff in DG 08-009. While I recognize that the use of updated financial data could change the composition of Staff's group, six of the seven companies used by Staff in DG 08-009 also are included in my proxy group (*see* Table 5, below).

Table 5: Proxy Group Companies

Company	Hevert Proxy Group	Staff Proxy Group
AGL Resources	√	
Atmos Energy	X[1]	√
Laclede Group	√	√
Nicor, Inc.	√	√
Northwest Natural Gas	√	√
Piedmont Natural Gas	√	√
South Jersey Industries	√	
Southwest Gas	√	√
WGL Holdings	√	√

[1] Excluded since less than 60.00 percent of consolidated operating income has been derived from natural gas distribution operations.

1 **VI. COST OF EQUITY ESTIMATION**

2 **Q. Please briefly discuss the ROE in the context of the regulated rate of return.**

3 A. Regulated utilities primarily use common stock and long-term debt to finance
4 their permanent property, plant and equipment. The overall rate of return
5 ("ROR") for a regulated utility is based on its weighted average cost of capital, in
6 which the cost rates of the individual sources of capital are weighted by their
7 respective book values. While the costs of debt and preferred stock can be
8 directly observed, the cost of equity is market-based and, therefore, must be
9 inferred from market-based information.

10

11 **Q. How is the required ROE determined?**

12 A. The required ROE is estimated by using one or more analytical techniques that
13 rely on market-based data to quantify investor expectations regarding required
14 equity returns, adjusted for certain incremental costs and risks. By their very
15 nature, those methodologies produce a range of results. As the Commission has
16 rightly pointed out in prior proceedings, the results of quantitative models, when
17 viewed in the context of capital market requirements produce a range of
18 reasonable results (sometimes referred to as the "zone of reasonableness") from
19 which the market required ROE is selected. As discussed throughout my Direct
20 Testimony, that selection must be based on a comprehensive review of relevant
21 data and information, and does not necessarily lend itself to a strict mathematical
22 solution. As a general proposition, 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 (by virtue of the comparable group) in particular.

Q. Are you aware that the New Hampshire Commission has relied primarily on the DCF approach in establishing the ROE for regulated utilities?

A. Yes, I am aware that the Commission has expressed its preference for the DCF approach as the primary method in determining the ROE. However, the Commission also has encouraged the use of other methods as a test of the reasonableness of the DCF results.[30] In prior proceedings, for example, both Staff and the Commission supported the use of a three-stage DCF model. As the Commission noted:

> Staff testimony supports the view that a three-stage version of the DCF represents a valuable refinement to the DCF model of estimating the cost of capital looking forward over the long term. We agree. Given the computing power available to analysts today, it is possible to more closely match growth rate estimates to varying growth expectations over longer time horizons.[31]

I, therefore, have relied on two forms of the DCF model (the Constant Growth, and Multi-Stage forms) as my primary approaches, and the CAPM and Risk Premium models to assess my DCF results.

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[30] State of New Hampshire Public Utilities Commission, Docket No. DG 08-009, Order No. 24, 972, May 29, 2009, at 59.

[31] Re: Verizon New Hampshire, 232 P.U.R. 4th 24 (N.H. P.U.C., 2004), at 32.

Q. Why do you believe it is important to use more than one analytical approach?

A. When faced with the task of estimating the cost of equity, analysts are inclined to gather and evaluate as much relevant data (both quantitative and qualitative) as reasonably can be analyzed. For that reason, I use multiple approaches to estimate the cost of equity used in performing valuations in the context of our financial advisory and transaction practices. In addition, as a practical matter, all of the models available to estimate the cost of equity are subject to limiting assumptions or other methodological constraints, many of which are inconsistent with the actual conditions prevailing in the marketplace. Consequently, many finance texts recommend using multiple approaches when estimating the cost of equity. Copeland, Koller and Murrin,[32] for example, suggest using the CAPM and Arbitrage Pricing Theory model, while Brigham and Gapenski[33] recommend the CAPM, DCF and "bond yield plus risk premium" approaches.

In essence, analysts and academics understand that ROE models simply are tools to be used in the ROE estimation process and that strict adherence to any single approach, or the specific results of any single approach, can lead to flawed and irrelevant conclusions. That position is consistent with the *Hope* and *Bluefield* finding that it is the analytical result, as opposed to the methodology, that is

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[32] Tom Copeland, Tim Koller and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, 3rd ed. (New York: McKinsey & Company, Inc., 2000), at 214.

[33] Eugene Brigham, Louis Gapenski, Financial Management: Theory and Practice, 7th Ed. (Orlando: Dryden Press, 1994), at 341.

1 controlling in arriving at ROE determinations. A reasonable ROE estimate
2 therefore considers alternative methodologies, observable market data, and the
3 reasonableness of their individual and collective results.
4
5 Although we cannot directly observe the cost of equity, we can observe the
6 methods frequently used by analysts to arrive at their return requirements and
7 expectations. While investors and analysts tend to use multiple approaches in
8 developing their estimate of return requirements, each methodology requires
9 certain judgment with respect to the reasonableness of assumptions and the
10 validity of proxies in its application. As the Commission has pointed out, for
11 example, it is unlikely that Price/Earnings ratios remain constant over long
12 periods of time, even though the Constant Growth DCF model assumes they will
13 do so.[34] As discussed in more detail later in this section of my Direct Testimony,
14 the multi-stage DCF model specifically addresses that concern.
15
16 In my view, therefore, it is both prudent and appropriate to use multiple
17 methodologies in order to mitigate the effects of assumptions and inputs
18 associated with relying exclusively on any single approach. Such use, however,
19 must be tempered with due caution as to the results generated by each individual
20 approach. Based on the Commission's general reliance on the DCF model
21 method, and in light of the capital market practices discussed above, I have relied

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[34] State of New Hampshire Public Utilities Commission, Docket No. DG 08-009, Order No. 24, 972, May 29, 2009, at 62.

1 primarily on the results of the Constant Growth and Multi-Stage forms of the
2 DCF model. In particular, I have included the Multi-Stage DCF model to address
3 the Commission's concern that P/E and dividend payout ratios likely change over
4 time.
5
6 ***A. Constant Growth DCF Model***
7 **Q. Are DCF models widely used to determine the ROE for regulated utilities?**
8 A. Yes. As noted above, the Commission has concluded in previous decisions that
9 the DCF approach is the most reliable and consistent method in terms of its
10 application and results.[35] DCF models are widely used in regulatory proceedings
11 and have sound theoretical bases, although neither the DCF model nor any other
12 model can be applied without considerable judgment in the selection of data and
13 the interpretation of results. In its simplest form, the DCF model expresses the
14 cost of equity as the sum of the expected dividend yield and long-term growth
15 rate.
16
17 **Q. Please describe the DCF approach.**
18 A. The DCF approach is based on the theory that a stock's current price represents
19 the present value of all expected future cash flows. In its most general form, the
20 DCF model is expressed as follows:

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[35] State of New Hampshire Public Utilities Commission, Docket No. DG 08-009, Order No. 24, 972, May 29, 2009, at 57.

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \ldots + \frac{D_\infty}{(1+k)^\infty} \quad [1]$$

Where P_0 represents the current stock price, $D_1 \ldots D_\infty$ are all 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:

$$k = \frac{D(1+g)}{P_0} + g \quad [2]$$

Equation [2] is often 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 growth rate.

Q. What assumptions are required for the Constant Growth DCF model?

A. The DCF model is predicated on the following assumptions: (1) a constant average 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. To the extent that any of these assumptions are violated, it increases the need to apply considered judgment and/or specific adjustments to the results.

1 ***B. Dividend Yield for the Constant Growth DCF Model***

2 **Q. What market data did you use to calculate the dividend yield in your DCF**
3 **model?**

4 A. The dividend yield in my Constant Growth DCF model is based on the proxy
5 companies' current annual dividend and average closing stock prices over the 30,
6 90 and 180-trading days ended January 29, 2010.

7

8 **Q. Why did you use three averaging periods?**

9 A. I believe it is important to use an average of trading days to calculate the term P_0
10 in the DCF model to ensure that the calculated ROE is not skewed by anomalous
11 events that may affect stock prices on any given trading day. In that regard, the
12 averaging period should be reasonably representative of expected capital market
13 conditions over the long term.[36] At the same time, it is important to reflect the
14 volatile conditions that have defined the financial markets over the past several
15 months. In my view, the use of the 30, 90 and 180-day averaging periods
16 reasonably balances those concerns.

17

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[36] I note that in DG 08-009, Staff used a one-month period for determining the dividend yield component of the DCF model. *See* Order No. 24,972, at 30.

Q. Putting aside the issue of the averaging period, did you make any adjustments to the dividend yield to account for periodic growth in dividends?

A. Yes. 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 reasonable to apply one-half of the expected annual dividend growth for purposes of calculating the expected dividend yield component of the DCF model. This adjustment ensures that the expected dividend yield is, on average, representative of the coming twelve-month period, and does not overstate the aggregated dividends to be paid during that time. Accordingly, the DCF estimates provided in Attachment RBH-2 reflect one-half of the expected growth in the dividend yield component of the model.

C. ***Growth Rates for the DCF Model***

Q. Why is it important to select appropriate measures of long-term growth in applying the DCF model?

A. In its Constant Growth form, the DCF model (*i.e.*, Equation [2]) 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 run, however, dividend growth can only be sustained by

1 earnings growth. Consequently, it is important to incorporate a variety of
2 measures of long-term earnings growth into the constant growth DCF model.
3 This can be accomplished by averaging those measures of long-term growth that
4 tend to be least influenced by capital allocation decisions that companies may
5 make in response to near-term changes in the business environment. Since such
6 decisions may directly affect near-term dividend payout ratios, estimates of
7 earnings growth are more indicative of long-term investor expectations than are
8 dividend growth estimates. Therefore, for the purposes of the Constant Growth
9 form of the DCF model, growth in earnings represents the appropriate measure of
10 long-term growth.

11

12 **Q. Are you aware that the New Hampshire Commission has indicated that it**
13 **favors use of growth forecasts aside from expected earnings per share**
14 **growth?**

15 A. Yes, I am aware that the Commission has accepted the use of different estimates
16 of growth, including dividends per share, and book value per share. In support of
17 that approach, the Commission has observed that stock price appreciation is not
18 the sole determinant of investors' return, and that dividends are an important part
19 of investors' return from utility stocks. The Commission further has stated that

1 sole reliance on earnings growth is not appropriate since the Constant Growth
2 DCF model assumes a constant price to earnings ratio.[37]
3
4 **Q. In light of the Commission's concerns, have you included measures of**
5 **expected growth aside from earnings growth projections?**
6 A. Yes, I have included a measure of Retention Growth in my DCF analysis. As
7 discussed in more detail below, the Retention Growth estimate models expected
8 growth as a function of the proportion of earnings that are reinvested back into the
9 firm, the returns earned on invested equity (that is, internally funded growth) and
10 the expected issuance of common stock (externally funded growth). I also note
11 that the "market-to-book" approach presented by Staff in Docket No. DG 08-009
12 relies on the Retention Growth model to estimate long-term growth.
13
14 **Q. Please describe the retention growth estimate as applied in your Constant**
15 **Growth DCF.**
16 A. The Retention Growth model, which is a generally recognized and widely taught
17 method of estimating long-term growth,[38] is an alternative approach to the use of
18 analysts' earnings growth estimates. In essence, the model is premised on the
19 proposition that a firm's growth is a function of its expected earnings, and the

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[37] State of New Hampshire Public Utilities Commission, *Energy North Natural Gas, Inc. D/B/A National Grid NH, Notice of Intent to File Rate Schedules*, Order Granting Delivery Rate Increase, Order No. 24,972, May 29, 2009, at 62.

[38] *See*, for example, Brealey, Meyers and Allen, Principles of Corporate Finance, 8th Ed, 2006. As discussed later in my testimony, the Retention Growth model is consistent with Staff's "market-to-book" method.

extent to which it retains earnings to invest in the enterprise. In its simplest form, the model represents long-term growth as the product of the retention ratio (*i.e.*, the percentage of earnings not paid out as dividends, referred to below as "b" and the expected return on book equity, referred to below as "r"). Thus, the simple "b x r" form of the model projects growth as a function of internally generated funds. That form of the model is limiting, however, in that it does not provide for growth funded from external equity.

The "br + sv" form of the Retention Growth estimate used in my DCF analysis is meant to reflect growth from both internally generated funds (*i.e.*, the "br" term) and from issuances of equity (*i.e.*, the "sv" term). The first term, which is the product of the retention ratio (*i.e.*, "b", or the portion of net income not paid in dividends) and the expected return on equity (*i.e.*, "r") represents the portion of net income that is "plowed back" into the Company as a means of funding growth. The "sv" term can be represented as:

$$(\frac{m}{b} - 1) \text{ x Common Shares growth rate [3]}$$

where:

$\frac{m}{b}$ = the market to book ratio.

In this form, the "sv" term reflects an element of growth as the product of (a) the growth in shares outstanding, and (b) that portion of the market-to-book ratio that exceeds unity. As shown in Attachment RBH-3, all of the components of the Retention Growth Model can be derived from data provided by Value Line.

Q. Why have you not relied on projected dividend growth rates in your constant growth DCF analysis?

A. I disagree with the use of dividend growth rates for several reasons. First, earnings are the fundamental determinant of a company's ability to pay dividends. Management decisions to conserve cash for capital investments, to manage the dividend payout for the purpose of minimizing future dividend reductions, or to finance future earnings prospects can influence dividend growth rates in near-term periods. Since dividends are discretionary, in the short run, dividend growth may deviate significantly from earnings growth. Over the long run, however, dividends are dependent on and will increase as a function of earnings.

That investors are focused on earnings rather than dividends in forming their investment decisions is a long-standing principle in applied finance. As noted over 40 years ago by Charles Phillips in The Economics of Regulation:

> For many years, it was thought that investors bought utility stocks on the basis of dividends. More recently, however, studies indicate that the market is valuing utility stocks with reference to total per

> share earnings, so that the price-earnings ratio has assumed increased emphasis in rate cases.[39]

To that point, the research of Carleton and Vander Weide[40] (discussed below) demonstrates that earnings growth projections have a statistically significant relationship to stock valuation levels; dividend growth projections do not. Those findings suggest that investors form their investment decisions based on expectations of growth in earnings, not dividends. Consequently, earnings not dividend growth is the appropriate estimate for the purpose of the Constant Growth DCF model.[41]

Moreover, while Zacks and First Call are consensus growth estimates, Value Line is the sole provider of dividend and book value growth estimates. Putting aside the observations that if investor services such as Zacks and First Call felt that projected dividend and book value growth rates were important to investors they likely would provide them, the fact that Value Line growth rates are developed by a single analyst introduces a potential element of bias. In fact, it is for that reason that one of my screening criteria is that comparable companies must be followed by multiple analysts.

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[39] Charles F. Phillips, Jr., The Economics of Regulation, Revised Edition, 1969, Richard D. Irwin, Inc., at 284.

[40] *Investor growth expectations: Analysts vs. history,* James Vander Weide and Willard Carleton, at 4. Please note that while the original study was published in 1988, it was updated in 2004 under the direction of Dr. Vander Weide. The results of this updated study are consistent with Vander Weide and Carlton's original conclusions.

[41] As discussed later in my testimony, that finding applies specifically to the proxy group.

Q. Why do you not use projected book value per share growth rates in the DCF formulation?

A. As noted above, it is growth in earnings that enables both dividend and book value growth, a position that is firmly supported by the academic research discussed previously. Academic research has clearly indicated that measures of earnings and cash flow are the superior predictor of stock prices and returns.[42] While that research is based on companies and industries beyond natural gas utilities, my own quantitative analyses demonstrate that the same conclusions hold for the proxy group companies.

Q. Please describe the analyses you conducted to determine which measures of growth are statistically related to the proxy companies' stock valuation levels.

A. My analyses are structured based on a methodological approach used by Professors Carleton and Vander Weide, who conducted a comparison of the predictive capability of historical growth estimates and analysts' consensus forecasts of five-year earnings growth for the stock prices of sixty-five utility companies.[43] While their study addressed the use of historical growth rates, the general methodology established by Professors Carleton and Vander Weide also can be used to determine which growth rate projections have the greatest

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[42] *See*, for example, Harris, Robert, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return*, Financial Management, Spring 1986.

[43] *Investor growth expectations: Analysts vs. history,* James Vander Weide and Willard Carleton, at 4. Please note that while the original study was published in 1988, it was updated in 2004 under the direction of Dr. Vander Weide. The results of this updated study are consistent with the Vander Weide and Carlton's original conclusions.

1 predictive capability with respect to stock price valuation levels. As discussed
2 below, my analyses were structured to identify the growth estimate (or estimates)
3 that best explains changes in the proxy group stock valuation levels. Essentially,
4 the analysis is structured to determine whether investors use Earnings, Dividend
5 or Book Value growth rates when valuing the proxy company stocks.

6

7 As shown in Table 6 (*see* also Attachment RBH-4), my analysis examines the
8 relationship between the Relative Price-to-Earnings ("Relative P/E") ratios of the
9 proxy companies, and the projected Earnings Per Share ("EPS"), Dividends Per
10 Share ("DPS"), and Book Value Per Share ("BVPS") growth rates reported by
11 Value Line.[44] I began with the Value Line universe of 12 natural gas distribution
12 companies. I relied on the screening criteria used to develop the proxy group as
13 controlling variables, resulting in an analysis that included the eight companies
14 covered by Value Line that also are included in my proxy group. In order to
15 establish a sample of sufficient size to be statistically significant, I examined the
16 relationship between the relative price to earnings ratio of the companies and the
17 projected EPS, DPS and BVPS growth rates reported by Value Line over the
18 period from March 2004 through June 2008. I did not include the period from
19 June 2008 through the present in my analysis due to the abnormal market
20 conditions experienced during that period. I also eliminated any observations
21 wherein Value Line did not report an Earnings, Dividend, or Book Value per

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[44] I noted that in DG 08-009 Staff relied exclusively on ValueLine for growth rate projections.

share projections. I then performed a series of regression analyses in which the projected growth rates were included as explanatory variables, with the Relative P/E ratio as the dependent variable. The intent of these analyses was to determine which, if any, of those growth rates are statistically related to the proxy company stock valuation levels. As shown in Table 6 (below), the results of all five regression analyses indicate that EPS is the only statistically significant explanatory variable for relative price to earnings.

Table 6: Regression Results- Relative Price to Earnings v. Growth Rates

	Intercept	Coefficient	Standard Error	T-Stat	F-Stat
Scenario 1- Projected EPS	-1.2723	49.34551	22.85738	2.15884	4.66061
Scenario 2- Projected DPS	2.1162	-23.00105	30.34557	-0.75797	0.57452
Scenario 3- Projected BVPS	2.0811	-12.98049	27.48092	-0.47235	0.22311
Scenario 4- Projected EPS, Projected DPS Projected BVPS	0.4264	54.72857 -24.90539 -26.17602	23.43500 29.97143 27.72029	2.33533 -0.83097 -0.94429	2.08538
Scenario 5- Stepwise Regression Including Projected EPS (DPS and BVPS excluded by Stepwise)	-1.271	49.34551	22.85738	2.15884	4.611061

In the first set of analyses (Scenarios 1-3), I considered each independent variable separately (*i.e.*, performed three separate regressions with Relative P/E as the dependent variable and projected EPS, DPS and BVPS as the independent variable) and found that the projected EPS growth rate was the only statistically significant explanatory variable for relative price to earnings. To ensure that

these separate analyses did not somehow bias my results, I then performed a single regression that included all three variables as potential explanatory variables (Scenario 4). Finally, I conducted a stepwise regression analysis to determine the combination of any of the three explanatory variables that results in the highest level of explanatory value (Scenario 5).

Q. What did your analyses reveal?

A. In all scenarios, the only statistically significant variable was the projected EPS growth rate; neither projected dividend growth nor projected book value growth had any significant explanatory value.[45]

Q. What conclusions did you draw from those analyses?

A. Since those analyses empirically demonstrate that only earnings growth has a statistically significant level of explanatory value with respect to the proxy companies' stock prices, I conclude that investors consider expected earnings, not expected dividend or book value growth rates in establishing market prices for those companies. Therefore, I have continued to rely on projected earnings per share growth rates from Value Line, Zacks, and First Call in developing my DCF results, together with the Retention Growth estimated noted above.

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[45] It also is interesting to note that even though they are not statistically significant, the DPS and BVPS variables have negative coefficients suggesting an inverse relationship between those growth variables and valuation levels.

Q. Do you have any other comments regarding the use of dividend or book value growth rates in the Constant Growth DCF model?

A. Yes. As noted earlier, the Constant Growth DCF model assumes that earnings, dividends and book value all grow at the same constant rate, and that the Price/Earnings ratio remain constant in perpetuity. Under those strict assumptions, the DCF result does not vary if the stock is held in perpetuity, or if it is held for only 2, 5, 10 or any other period and sold at the market price at the end of that period. However, those assumptions rarely, if ever, hold in practice. Because investors are not likely to hold stock in perpetuity, they expect a substantial portion of the return in the form of capital appreciation. Since stock valuation levels are statistically related to earnings growth (but not dividend or book value growth) earnings growth is the appropriate growth rate to use in the DCF analysis.[46]

Q. Please summarize your inputs to the Constant Growth DCF model.

A. I applied the Constant Growth DCF model to the proxy group of eight gas distribution 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 January 29, 2010 for the term P_0; and
2. The annualized dividend per share as of January 29, 2010 for the term D_0.

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[46] That finding is corroborated by the common practice of valuing shares of common stock on the basis of P/E ratios.

I then calculated the DCF results using each of the following growth terms:

1. The Zacks consensus long-term earnings growth estimates;
2. The First Call consensus long-term earnings growth estimates;
3. The Value Line earnings growth estimates; and
4. The projected Retention Growth rates.

Q. Are you aware that in Docket No. DG 08-009, Staff also included the "market-to-book" method in its DCF calculations?

A. Yes, I am.

Q. Have you included that approach in arriving at your cost of equity estimate?

A. For the reasons discussed below, I typically do not use that model in developing cost of equity recommendations. In light of the Commission's acceptance of that model in DG 08-009, and given that the data required to calculate the model are derived from sources already included in my Direct Testimony, however, I have included that approach in my DCF results.

Q. Please describe the "market-to-book" model.

A. As Staff pointed out, the growth component of its "market-to-book" approach is the sum of internal and external sources of growth.[47] In that regard, the growth component is the same as the "br + sv" method contained in the Retention Growth model discussed earlier in this section of my Direct Testimony. The difference

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[47] Direct Testimony of Pradip K. Chattopadhyay, Docket No. DG 08-009, October 31, 2008, at 26.

between Staff's "market-to-book" model and the Retention Growth model, then, lies in the calculation of the dividend yield component. Whereas my application of the Constant Growth DCF model relies on actual dividend and stock price data to calculate the dividend yield, the "market-to-book" model estimates the dividend yield on the basis of several parameters, all of which are provided by Value Line. As a consequence, the "market-to-book" method is likely to deviate, perhaps substantially, from the observed dividend yield.

Q. Please elaborate on that point.

A. As noted in Staff's testimony, the "market-to-book" method is specified as:

$$K_e = \left[\frac{(1-b)r}{P/B}\right] + \left[br + g\left(\frac{P}{B} - 1\right)\right] \quad [4]$$

where:

b = Retention Ratio;

r = Return on Book Equity;

P/B = Price/Book ratio; and

g = growth in the number of shares outstanding.[48]

As noted above, the second bracketed term is the "br + sv" component of the Retention Growth model. The first bracketed term, $\left[\frac{(1-b)r}{P/B}\right]$, can be re-arranged as:

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[48] *Ibid.* Please note that the brackets included in Equation [4] have been added for the purpose of clarification.

$$[(1-b) \times r \times B)]/P \quad [5].$$

Equation [5], which is the product of the payout ratio (1 - *b*), the earned return on book equity (*r*) and the book value of equity per share (*B*), simply is an expression of the expected dividend per share. The expected dividend per share divided by the market price (*P*) is the expected dividend yield.

In essence, the market-to-book model combines the Retention Growth rate discussed earlier with an algebraic expression of the dividend yield. Consequently, its application depends on estimates of the expected payout ratio, the expected earned return on equity, and the expected price/book ratio. Because the dividend yield is an observable parameter, the market-to-book model may introduce additional elements of potential estimation error. Nonetheless, since all of the inputs required by the model are components of my Retention Growth model, I have included that approach in my summary of DCF results.

D. ***Multi-Period DCF Model***

Q. What other forms of the DCF model have you considered?

A. In order to address some of the limiting assumptions underlying the Constant Growth form of the DCF model, I also considered the results of a multi-period (three-stage) Discounted Cash Flow Model. The three-stage model, which is an extension of the Constant Growth form, enables the analyst to specify growth rates over three discreet stages. As with the Constant Growth form of the DCF

1 model, the multi-period form defines the cost of equity as the discount rate that
2 sets the current price equal to the discounted value of future cash flows. Unlike
3 the Constant Growth form, however, the multi-period model must be solved in an
4 iterative fashion.
5
6 **Q. Has the Commission accepted the use of a three-stage DCF model in prior**
7 **proceedings?**
8 A. Yes, it has. As noted earlier, both the Commission and Staff noted the beneficial
9 aspects of the model in DT 02-110 (Order No. 24,265). Similarly, in Order No.
10 24,552 the Commission noted that in a prior Order (Order No. 24,473) it
11 "reaffirmed the use of the Three Stage DCF model...."[49]
12
13 **Q. Please generally describe the structure of your multi-period model.**
14 A. As noted above, the model sets the subject company's stock price equal to the
15 present value of cash flows received over three "stages". In the first two stages,
16 cash flows are defined as projected dividends. In the third stage, cash flows equal
17 both dividends and the expected price at which the stock will be sold at the end of
18 the period. The expected stock price is based on the Gordon model, which
19 defines the price as the expected dividend divided by the difference between the
20 cost of equity (*i.e.*, the discount rate) and the long-term expected growth rate. In

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[49] Public Service Company of New Hampshire, DE 04-177, Order No. 24,552, December 2005.

1 essence, the terminal price is defined by the Constant Growth DCF model.[50] In
2 each of the three stages, the dividend is the product of the projected earnings per
3 share and the expected dividend payout ratio. A summary description of the
4 model is provided in Table 7 (below).

5 **Table 7: Multi-Stage DCF Structure**

Stage	**0**	**1**	**2**	**3**
Cash Flow Component	Initial Stock Price	Expected Dividend	Expected Dividend	Expected Dividend + Terminal Value
Inputs	• Stock Price • Earnings Per Share (EPS) • Dividends Per Share (DPS)	• Expected EPS • Expected DPS	• Expected EPS • Expected DPS	• Expected EPS • Expected DPS • Terminal Value
Assumptions	• 3-month stock price averaging period • 6-month stock price averaging period	• EPS growth rate • Payout ratio		• Long-term growth rate

6

7 **Q. What are the specific benefits of a three-stage model?**

8 A. Because the second stage allows for a transition from the first stage growth rate to
9 the long-term growth rate, the three-stage model avoids the often unrealistic
10 assumption that growth will change immediately between the first and final

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50 Alternatively, the terminal price can be projected as the terminal period Earnings per Share multiplied by the expected Price/Earnings ("P/E") ratio. As discussed below, I chose to use the Gordon model, and check the reasonableness of the calculated terminal price by reference to ValueLine projected P/E ratios.

stages. In addition, because the model projects dividends as the product of earnings and the payout ratio, it provides the important ability to recognize that payout ratios may change over time.

It also is very important to note that while the model calculates the cost of equity based on expected dividends, it does not rely solely on Value Line for dividend growth rate projections. As noted earlier, a common and legitimate criticism of DCF models that rely on projected dividend growth rates (especially in the Constant Growth form of the model) is that Value Line is the sole source of such projections.[51] While the form of the model I have used relies on Value Line for projected payout ratios, the potential bias resulting from reliance on a single analyst is mitigated by the use of consensus earnings forecasts. The model also enables the analyst to check for the reasonableness of the inputs and results by reference to certain market-based metrics. The terminal price, for example, can be divided by the expected EPS in the final year to calculate an average P/E ratio. To the extent that the projected P/E ratio is inconsistent with either historical or expected levels, it may indicate incorrect or inconsistent assumptions within the balance of the model.

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[51] *See*, for example, Harris and Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, 65 (Summer 1992).

Q. Please summarize your inputs to the Multi-Period DCF model.

A. I applied the multi-period model to the proxy group described earlier in my Direct Testimony. My assumptions with respect to the various model inputs are described in Table 8 (below).

Table 8: Multi-Stage DCF Model Assumption

Stage	**0**	**1**	**2**	**3**
Stock Price	30, 90, and 180 day average daily stock price as of January 29, 2010			
Earnings Growth	EPS as reported by Value Line	EPS growth as average of (1) Value Line, (2) Zacks, and (3) First Call projected growth rates	Transition to Long-term GDP growth on geometric average basis	Long-term GDP growth
Payout Ratio		Value Line company-specific	Transition to industry average payout ratio (Value Line) on a geometric average basis	Industry average (Value Line)
Terminal Value				Expected dividend in final year divided by solved cost of equity less long-term growth rate

Q. How did you calculate the long-term GDP growth rate?

A. The long-term growth rate of 5.87 percent is based on the real GDP growth rate of 3.29 percent from 1929 through 2009,[52] and an inflation rate of 2.50 percent. The

[52] Source: Bureau of Economic Analysis

GDP growth rate is calculated as the compound growth rate in the chain weighted GDP for the period from 1929 through 2009. The rate of inflation of 2.50 percent is based on the average of the long-term projected growth rate in the Consumer Price Index ("CPI") for all urban consumers, as reported by Blue Chip Economic Indicators of 2.40 percent[53] and the compound annual growth rate in the CPI of 2.61 percent projected by the Energy Information Administration ("EIA") in the 2009 Annual Energy Outlook.[54]

Q. What were your specific assumptions with respect to the payout ratio?

A. As noted in Table 8, for the first two periods I relied on the first year and long-term projected payout ratios reported by Value Line[55] for each of the proxy group companies. I then assumed that the long-term payout ratios for the proxy group will converge to the long-term industry average payout ratio of 65.00 percent, as reported by Value Line.

E. Discounted Cash Flow Model Results

Q. Please summarize the results of your DCF analyses.

A. Table 9 (below) and Attachments RBH-2, RBH-5 and RBH-6, present the results of the Constant Growth, market-to-book, and Multi-Period DCF analyses. Setting

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53 Blue Chip Economic Indicators, Vol. 34, No. 10, October 10, 2009, at 14. The long-term average growth rate in CPI for the period from 2016 through 2020.

54 EIA 2009 Annual Energy Outlook, Table A20. Macroeconomic Indicators, Update AEO2009 Reference April 2009. Please note that 5.87% = [(1+3.29%) x (1+2.50%)]-1

55 As reported in the December 11, 2009 Value Line Investment Survey for Gas Distribution Utilities as "All Div'ds to Net Prof".

aside the mean low results, the DCF models produce a range of results from 9.66 percent to 12.36 percent.

Table 9: Discounted Cash Flow Analyses Results

	Mean Low	Mean	Mean High
Constant Growth DCF			
30-Day Average	8.08%	9.66%	11.05%
90-Day Average	8.23%	9.81%	11.20%
180-Day Average	8.36%	9.94%	11.33%
Market-to-book	8.20%	10.01%	12.36%
Multi-Stage DCF Result			
30-Day Average		10.41%	
90-Day Average		10.57%	
180-Day Average		10.71%	

Q. Referring to your Constant Growth DCF model, how did you calculate the mean high and low results?

A. I calculated the mean high result using the maximum growth rate (*i.e.*, the maximum of the Zacks, First Call, and Value Line EPS growth rates together with the Retention Growth rate) in combination with the dividend yield for each of the proxy group companies. Thus, the mean high result reflects the average maximum result for the proxy group. I used a similar approach to calculate the mean low results, using the minimum growth rate for each proxy group company.

Q. Did you incorporate the mean low results into your ROE recommendation?

A. No, I did not. The mean low results (8.08 percent to 8.36 percent) are so low as to have no relevance to the determination of the Company's cost of equity. When

1 considered relative to the current yield on long-term utility debt, equity returns of
2 8.08 percent to 8.36 percent imply an equity risk premium of only 187 to 215
3 basis points to the current Baa Utility Bond Yield of 6.21 percent.[56] In contrast,
4 data presented by Citigroup produces an average equity risk premium of 440 basis
5 points for those years in which the Baa Utility Bond Yield also was
6 approximately 6.20 percent. As shown in Table 10 below, those years also
7 implied credit spreads that were at least 50 basis points below the current level of
8 credit spreads (*see* Table 1, above). Consequently, the mean low Constant
9 Growth DCF results have no relevance in the current (in fact, in any recent)
10 market environment.

11 **Table 10: Implied Equity Risk Premium**[57]

Year	Average Authorized Gas Utility ROE	Average Baa Utility Bond Yield	30-Year Treasury Yield	Credit Spread	Implied Equity Premium
2006	10.43%	6.05%	4.81%	1.24%	4.38%
2005	10.43%	6.14%	4.54%	1.60%	4.29%
2004	10.63%	6.10%	4.83%	1.27%	4.53%
Average	10.50%	6.10%	4.73%	1.37%	4.40%

12

13 **Q. Referring now to your Multi-Stage DCF model, are those results consistent**
14 **with other market indices?**
15 A. Yes, they are. Based on the assumptions described earlier, the Multi-Period
16 model produces average P/E multiples of 14.30 to 15.27 (depending upon the

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56 *See* Attachment RBH-8.
57 Source: Citigroup Global Markets, Inc., *Utility ROEs: An Overview*, April, 2008.

stock price averaging period). That range is generally consistent with the projected proxy group average P/E ratio of 15.88 for 2012 through 2014.[58] As noted earlier, since the terminal price is derivative of the model's prior calculations and assumptions, the terminal P/E ratio is an indicator of the reasonableness and consistency of the inputs and results.

Q. Did you undertake any additional analyses to support your DCF model results?

A. Yes. As noted earlier, I also used the Capital Asset Pricing Model, and the Risk Premium approach as a means of testing the reasonableness of my DCF results.

F. ***<u>CAPM Analysis</u>***

Q. Please briefly describe the general form of the Capital Asset Pricing Model.

A. The CAPM 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 [6], the CAPM is defined by four components, each of which theoretically must be a forward-looking estimate:

$$K_e = r_f + \beta(r_m - r_f) \quad [6]$$

where:

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[58] Projected P/E ratios by Value Line.

K_e = the required market ROE;

β = Beta of an individual security;

r_f = the risk-free rate of return; and

r_m = the required return on the market as a whole.

In this specification, the term (r_m – r_f) represents the market risk premium. According to the theory underlying the CAPM, since unsystematic risk can be diversified away, investors should be concerned only with systematic or non-diversifiable risk. Non-diversifiable risk is measured by Beta, which is defined as:

$$\beta = \frac{Covariance(r_e, r_m)}{Variance(r_m)} \quad [7]$$

The variance of the market return, noted in Equation [7], is a measure of the uncertainty of the general market, and the covariance between the return on a specific security and the market reflects the extent to which the return on that security will respond to a given change in the market return. Thus, Beta represents the risk of the security relative to the market.

Q. What assumptions did you use in your CAPM analysis?

A. Since both the DCF and CAPM methods assume long-term investment horizons, I used the 30-day average yield on 30-year Treasury Bonds and the projected 30-year Treasury yield as my estimate of the risk-free rate. In DG 08-009, Staff

1 noted that the market cost of equity was a forward looking concept and, rather
2 than relying on the calculation of a historical market risk premium, estimated the
3 market risk premium as the difference between the expected return on the market
4 portfolio and the risk-free rate.[59] Consistent with Staff's approach, I calculated a
5 forward-looking estimate of the market risk premium based on the expected
6 return on the S&P 500 Index, less the current 30-year Treasury bond yield. The
7 expected return on the S&P 500 is calculated using the constant growth DCF
8 model discussed earlier in my Direct Testimony for the companies in the S&P
9 500 index for which long-term earnings projections are available (the companies
10 with such projections represent 96.50 percent of the index market capitalization).

11

12 With respect to Beta, I considered two methods of calculation. My first approach
13 simply used the average reported Beta from Bloomberg and Value Line for the
14 proxy group companies. While both of those services adjust their calculated (or
15 "raw") Betas to reflect the tendency of Beta to regress to the market mean of 1.00,
16 Value Line calculates Beta over a five year period, while Bloomberg's calculation
17 is based on two years of data. As discussed below, however, current market
18 conditions are such that the volatility of the proxy group stock prices relative to
19 the broad market (that is, the covariance) has been increasing. Consequently,
20 Betas calculated over a more recent time period would provide a more current
21 view as to investors' perspectives with respect to "systematic" risk.

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[59] *See* Docket No. 08-009, Order No. 24,972 at 30; Direct Testimony of Pradip K. Chattopadhyay, Docket No. DG 08-009, October 31, 2008, at 30.

Q. Please describe how you calculated the mean adjusted beta for your proxy group.

A. As noted in Equation [7], Beta is calculated as the ratio of the covariance between the individual security returns and the market returns, to the variance of the market returns. To arrive at a single estimate of Beta for the proxy group, I first calculated the covariance between the weekly returns for each of the eight companies in the group and the weekly returns for the S&P 500 for the most recent twelve-month period. The average of those eight covariances for a given date produces the numerator of the Beta calculation for the proxy group. As noted above, the denominator in the calculation is the variance of weekly returns of the S&P 500.[60] As shown in Attachment RBH-7, this methodology results in a proxy group mean raw Beta of 0.602. Adjusting the raw Beta, in a manner that is consistent with the approach used by Bloomberg, produces an adjusted average Beta of 0.735.

Q. How and why did you adjust the raw beta?

A. As noted above, I adjusted the calculated raw Betas based on the methodology used by Bloomberg. That approach multiplies the raw Beta by 0.67, and adds 0.33 to that product. The purpose of that adjustment is to reflect the results of

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[60] It is worthwhile noting that averaging eight individual betas for each of the proxy group companies would produce the same result as first averaging the eight covariances and then dividing by the variance of the S&P 500's weekly returns.

substantial academic research indicating that over time, raw Betas tend to regress to the market mean of 1.00.[61]

Q. Please explain why you relied on a twelve-month estimate of the proxy group mean adjusted Beta.

A. As noted earlier, Beta estimates reported by Value Line and Bloomberg calculate the Beta for each company over historical periods of 60 and 24 months, respectively. During the recent financial market dislocation, the relationship between the returns of the proxy group companies and the S&P 500 was considerably different than has been experienced in the current market environment. In order to develop a cost of equity estimate that does not reflect an anomalous historical period, it is reasonable to rely on a near-term calculation of Beta to reflect the current relationship between the proxy group companies and the S&P 500. Given that Bloomberg uses a two-year calculation period, I based my analysis on a one-year calculation period. Chart 1 (below) illustrates the relationship between the average covariance of weekly returns for the proxy group and the variance in the returns of the S&P 500, the two components of the Beta calculation.

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[61] The regression tendency of betas to converge to 1.0 over time is well known and widely discussed in financial literature. *See* Blume, Marshall E., *On the Assessment of Risk*, The Journal of Finance, Vol. 26, No. 1, March 1971, at 1-10.

Chart 1: Proxy Group Average Covariance and S&P 500 Variance (Rolling twelve month calculation)

Chart 1 demonstrates that since January 2009, the difference between the average covariance for the proxy group weekly returns and the variance in the S&P 500 weekly returns, calculated on a rolling twelve month basis, has narrowed significantly (that is, the gap between the two lines has narrowed over time). Since Beta is the ratio of the covariance to the variance, that increasingly small difference indicates that the proxy company stock prices have become more volatile relative to the broad market. Consequently, over the past several months, the proxy group average Beta has been increasing, indicating higher levels of "systematic" risk.

Q. Is your calculated Beta of .735 consistent with levels that were observed prior to the financial market crisis?

A. Prior to the financial market crisis, the average Beta for the proxy group companies, as reported by Value Line, was considerably higher than the .735 calculated Beta discussed above. For example, in September 2007, one year prior to the Lehman Brothers bankruptcy filing, the proxy group average Beta was 0.85. In March 2008, the average Beta was 0.87, and in June 2008 it was 0.88. Based on those historical measures (which are quite consistent), it is my view that the twelve-month average Beta of 0.735 is conservative.

Q. How did you apply your modified CAPM?

A. I relied on the projected risk premium and near-term Beta to calculate the CAPM model using both near and long-term projections of the 30-year Treasury bond yield as the risk-free rate. As noted in Attachment RBH-8, the use of a projected market risk premium and risk-free rates produces a range of results that substantially overlaps the range of results produced by the other calculation methodologies.

Q. Are you aware that the Commission has indicated that it prefers to use the yield on the ten-year Treasury note as the risk-free rate in the CAPM?

A. Yes, I am. However, as shown in Charts 2 and 3 below, the relationship between the proxy group average dividend yield and the 30-year Treasury bond yield is very similar to the relationship between the proxy group dividend yield and the

yield on the 10-year Treasury bond. Comparing the two equations presented in Charts 2 and 3, the R^2, which is a measure of the fit of the regression line through the data set, is slightly higher for the 30-year Treasury yield, suggesting a slightly better fit than the 10-year Treasury yield. Furthermore, the composite depreciation rate for National Grid NH in DG 08-009 was approximately 2.84 percent,[62] suggesting an average useful life of assets (to which investors' funds ultimately are committed) of approximately 35.20 years. Since the term of the Risk-Free Rate component of the CAPM should match the life of the assets to which capital is being committed (as opposed to the holding period of the investor), and given the somewhat better statistical fit, I believe that on balance the 30-year Treasury yield is the more appropriate rate.

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[62] *EnergyNorth Natural Gas, Inc. d/b/a National Grid NH*, Docket DG 08-009, Partial Settlement Agreement, Appendix 3.

Chart 2: Proxy Group Average Dividend Yield versus 30-Year Treasury Bond Yield

Chart 3: Proxy Group Average Dividend Yield versus 10-Year Treasury Bond Yield

Q. What are the results of your CAPM analyses?

A. As shown in Attachment RBH-8, the results of my modified CAPM analysis, using the current Beta estimate suggest a mean ROE of 10.73 percent based on a range of returns from 10.30 percent to 11.17 percent. Relying on an average of the Value Line and Bloomberg estimates of Beta over a five-year and two-year historical period respectively, the results of my modified CAPM analysis suggest a mean return of 10.41 percent based on a range of returns of 9.98 percent and 10.85 percent.

G. Bond Yield Plus Risk Premium Analysis

Q. Please describe the bond yield plus risk premium approach you employed.

A. In general terms, this approach is based on the fundamental principal 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 to bear that risk. Risk premium approaches, therefore, estimate the cost of equity as the sum of the equity risk premium 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 an *ex-ante*, or forward-looking estimates of the cost of equity, and others that consider historical, or *ex-post,* estimates. In the case of the CAPM, those estimates are with respect to the

return on the broad market. An alternative approach is to use actual authorized returns for natural gas utilities as the measure of the cost of equity to determine the Equity Risk Premium.

Q. Are you aware that the New Hampshire Commission has criticized the use of authorized returns in other jurisdictions as a means for determining a reasonable ROE for a regulated utility in New Hampshire?

A. Yes, I am aware that the Commission expressed its concern with the use of a survey authorized returns in other jurisdictions absent a full understanding of the specific elements of each case. More specifically, the Commission indicated that survey results from other jurisdictions are not meaningful unless there is evidence regarding the specific circumstances behind the ROE awarded in those cases, including the risks, market conditions, regulatory factors, and reasoning behind the ROE awards.[63]

Q. What is your response to the Commission's concern in that regard?

A. To be clear, I am not using selected authorized returns in isolation as a benchmark for assessing the reasonableness of my DCF or CAPM results. Rather, my Risk Premium model uses the results of hundreds of returns authorized since 1992 relative to the then-current level of interest rates to determine the long-run

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[63] New Hampshire Public Utilities Commission, *EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Notice of Intent to File Rate Schedules*, Order Granting Delivery Rate Increase, Order No. 24,972, May 29, 2009, at 54.

1 relationship between authorized ROEs and interest rates. In that specific regard, I
2 am using authorized returns as a historical measure of the market-required ROE.
3 While I agree that the returns authorized in a given case may be affected by the
4 particular circumstances of that proceeding, the use of averages over hundreds of
5 cases largely mitigates that concern. Given the quantity of data used in my
6 analysis, and the fact that the financial community also relies on such analyses, I
7 believe that my Risk Premium analysis is a valid and useful measure of the
8 reasonableness of ROE estimates derived from other methodologies.

9

10 While I understand the Commission's concern with placing too much weight on
11 individual decisions, it is important to recognize that investors continue to review
12 and rely on the authorized returns in other jurisdictions as a means of assessing
13 risk comparability, and as a basis for forming their return expectations. Barclays,
14 for example, considers the relative differences in authorized returns as one of the
15 measures for establishing the relative risk of regulatory jurisdictions. Barclays
16 also reports the authorized returns and the "spread" between those returns and the
17 concurrent Moody's Baa Index Yield.[64] Similarly, in an April 2008 report,
18 Citigroup Global Markets reported (among other data points) the average
19 authorized ROE for gas and electric utilities, respectively, the average annual
20 Moody's Baa Index yield, and the "spread" between those two rates from 1993

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[64] Barclays' Capital, *Utilities: Capital Management*, July 16, 2009.

through the year-to-date 2008.[65] It is clear, therefore, that the financial community views authorized returns across jurisdictions to be a meaningful point of information in determining return requirements and in arriving at investment decisions.

Q. What did your bond yield plus risk premium analysis reveal?

A. As shown on Chart 4, from 1992 through the first quarter of 2010, there was, in fact, a strong negative relationship between risk premia and interest rates. To estimate that relationship, I conducted a regression analysis using the following equation:

$$RP = a + b(M) \quad [8]$$

where:

RP = Risk Premium (difference between allowed ROEs and the Moody's Baa Utility Bond Yield);

a = Intercept term;

b = Slope term; and

M = Baa rated Long-Term Utility Debt.

Data regarding allowed ROEs was derived from 437 natural gas distribution rate cases from 1992 through the January 2010 as reported by Regulatory Research

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[65] Citigroup Global Markets, *Utility ROEs: An Overview*, April 2008.

Associates. The equation's coefficients were statistically significant at the 99.00 percent level.[66]

Chart 4: Risk Premium vs. Interest Rates

Based on the regression coefficients shown on Chart 4 (above), the risk premium would be 4.26 percent.[67] As shown in Attachment RBH-9, using historical measures of the Baa-rated utility debt, the ROE would range from 10.46 percent to 10.59 percent. It is important to note, however, that this estimate does not include the effect of the Company's specific risk factors, as discussed in the following section of my Direct Testimony.

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[66] In order to ensure that the regression coefficients were not biased as a result of serially correlated error terms, the equation presented in Attachment RBH-9 was estimated using the Prais-Winsten corrective routine. That equation continues to produce a negative slope coefficient and an ROE estimate of approximately 10.67 percent.

[67] Based on a 30-day average of the Moody's Baa-rated Utility Bond Index.

1 **VII. BUSINESS RISKS**

2 **Q. Do the mean DCF, CAPM, and Risk Premium results for the proxy group**
3 **provide an appropriate estimate of the cost of equity for National Grid NH?**
4 A. No, the mean results do not necessarily provide an appropriate estimate of the
5 Company's cost of equity. In my view, there are several additional factors that
6 must be taken into consideration when determining where the Company's cost of
7 equity falls within the range of results, which is why it makes sense to have a
8 range in the first place. These factors include the Company's regulatory risks
9 relative to the proxy group, the Company's relatively small size, and the costs
10 associated with the flotation of common stock. These risk factors, which are
11 discussed below, should be considered in terms of their overall effect on the
12 Company's business risk.

13

14 ***A. Ratemaking Proposal and Relative Risk***

15 **Q. Please summarize the Company's ratemaking proposal in this proceeding.**
16 A. The Company's proposal is discussed in greater detail in the Direct Testimony of
17 Ms. Susan F. Tierney. In general, the Company's proposal includes an updated
18 historical test period used to establish rates, and a revenue decoupling mechanism.
19 The decoupling mechanism separates the recovery of distribution revenue from
20 the volume of natural gas that is delivered. The ratemaking proposal establishes
21 rates based on a historical test-year cost of service, and includes an update of rate
22 base for non-growth capital expenditures such as public works replacement

1 projects and cast iron/bare steel replacement projects. In addition, the Company's
2 proposal includes a mechanism to track and adjust for changes in large,
3 potentially volatile costs over which the Company has little control, such as
4 pension and other post employment benefit expenses, as well as the effect of
5 inflation on certain costs.

6

7 **Q. Have you also reviewed the rate mechanisms in place at the proxy**
8 **companies?**

9 A. Yes, I have. The purpose of my review was to generally assess the breadth of cost
10 tracking and revenue stabilization structures in place at the proxy companies
11 relative to the Company's ratemaking proposal. I am aware that some analysts
12 suggest that the implementation of a revenue stabilization structure necessarily
13 reduces risk and, therefore, requires a downward adjustment to the ROE. In my
14 view, the relevant analytical issue is not whether the Company's revenue stream
15 may be less volatile as a result of the ratemaking proposal than it would be in the
16 absence of such a structure, nor is it whether certain elements of regulatory risk
17 may be mitigated or deferred in an absolute sense. Rather, the relevant issue is
18 whether the mechanisms proposed by the Company render the Company so much
19 less risky relative to the proxy companies in the long run that investors knowingly
20 and meaningfully reduce their return requirements as a specific result of the
21 proposal. A necessary first step in making that determination is to review the rate

structures currently in place, and expected to be implemented at the proxy companies.

Q. Please summarize your review of those rate structures.

A. Attachment RBH-10 presents the results of my research into the proxy companies' rate structures as well as the Company's current tariff provisions. As shown in that attachment, many of the proxy group companies have implemented more comprehensive adjustment mechanisms than are currently included in the Company's proposed rate design. Moreover, many of the proxy group companies have implemented some form of decoupling mechanism or have plans to propose such mechanisms in their remaining jurisdictions. In addition to decoupling, several of the proxy group companies have cost recovery mechanisms for capital replacement programs, as well as cost trackers for exogenous expenses, similar to the components of the Company's ratemaking proposal.

Q. What do these findings suggest about the relative regulatory risk of National Grid NH compared to the proxy group?

A. As noted by Staff and the Commission in Docket No. DG 08-009, the operative concept in this analysis is that of *relative risk*.[68] Importantly, the absence of revenue decoupling and weather normalization clauses in the Company's current

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[68] State of New Hampshire Public Utilities Commission, *Energy North Natural Gas, Inc. D/B/A National Grid NH, Notice of Intent to File Rate Schedules*, Order Granting Delivery Rate Increase, Order No. 24,972, May 29, 2009, at 41.

structure places it at significantly greater risk relative to the proxy group for variations in natural gas usage, either due to declining average use per customer as the result of energy efficiency and conservation efforts, or to revenue volatility due to weather that is warmer or colder than normal. Without these regulatory protections, investors in National Grid NH are exposed to significantly greater risks in earnings and cash flows than the proxy group companies.

In assessing the relative risk of the Company, therefore, the relevant analytical issue is not whether the Company's earnings would be less volatile following the implementation of the proposed alternative regulation plan than without it; rather the pertinent issue is whether the Company would be more or less risky with its proposed alternative regulation plan as compared to the proxy group. As shown in Attachment RBH-10, many of the proxy group companies have implemented some form of decoupling in several jurisdictions. In addition, several of the proxy group companies have stated the intention to implement decoupling in the remaining jurisdictions where they are currently relying on traditional rate design. Furthermore, many of the proxy group companies have adjustment mechanisms that recover the costs for many of the capital replacement and exogenous costs that the Company is seeking to recover through its proposal. Consequently, approval of the ratemaking proposal would not render the Company less risky than the proxy group, and therefore would therefore not require a decrease in the

Company's ROE. Conversely, if the Commission does not approve the proposal, the Company is subject to greater business risk than the proxy group companies.

B. ***Small Size Adjustment***

Q. Please explain the risks 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." While empirical evidence of the size effect often is based on studies of industries beyond regulated utilities, utility analysts also have observed the risks associated with small market capitalizations. Specifically, Ibbotson Associates (Morningstar, Inc.) noted:

> For 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.[69]

Q. How does National Grid NH compare in size to the proxy companies?

A. National Grid NH is substantially smaller than its proxy group. As noted in Attachment RBH-11, the Company's implied market capitalization (at the proxy group median market/book ratio) is less than 10.00 percent of the proxy group median market capitalization.

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[69] Michael Annin, *Equity and the Small-Stock Effect*, Public Utilities Fortnightly, October 15, 1995.

1 **Q. Have you considered the Company's relatively small size in arriving at your**
2 **ROE recommendation?**
3 A. Yes. As shown on Attachment RBH-11, National Grid NH is significantly
4 smaller than the proxy companies. While I have quantified the small size effect, I
5 have not applied the results of this analysis as an explicit adjustment to the
6 Company's ROE. Rather, I have considered the Company's relatively small size
7 in my assessment of business risks in order to determine where within a
8 reasonable range of returns the required ROE rightly falls.
9
10 **Q. How did you estimate the size premium for National Grid NH?**
11 A. In its Risk Premia Over Time Report: 2009, Morningstar presents its calculation
12 of the size premium for deciles of market capitalizations relative to the S&P 500
13 Index. An estimate of the size premium associated with National Grid NH,
14 therefore, is the difference in the Ibbotson size risk premia for the proxy group
15 median market capitalization relative to the average market capitalization for
16 those companies below the group median.[70]
17
18 As shown in Attachment RBH-11, as of January 29, 2010, the median market
19 capitalization of the proxy group was approximately $1.417 billion, which

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[70] My methodology for calculating the effect of small size, as described herein has been slightly revised due to the extreme differences in size between National Grid NH and the proxy companies. If I had relied on my traditional analysis, where I compare National Grid NH's implied market cap directly to the proxy group median market cap, the resulting differences in size premia would produce an extremely high size premium for National Grid NH. Therefore, I have modified my analysis to compare the smallest of the proxy group companies to National Grid NH.

1 corresponds to the 6th decile of Ibbotson market capitalization data. Based on the
2 Ibbotson analysis, that decile has a size premium of 1.63 percent (or 163 basis
3 points). The market capitalization for the smallest company in the proxy group,
4 Laclede Group, which is greater than 5 times the implied market capitalization of
5 National Grid NH, is $717.8 million, which falls within the 8th decile and
6 corresponds to a size premium of 2.35 percent (or 235 basis points). The
7 difference between those size premia is 72 basis points (2.35 percent - 1.63
8 percent). This approach is very conservative, given the size of National Grid NH
9 relative to the proxy group.
10
11 **Q. Is there support in the financial community for the use of a small size**
12 **premium?**
13 A. Yes. There have been several studies conducted that demonstrate the size
14 premium. One of the earliest works in this area found that over a period of 40
15 years "…the common stock of small firms had, on average, higher risk-adjusted
16 returns than the common stock of large firms."[71] The author, who referred to that
17 finding as the "size effect" suggested that the CAPM was mis-specified in that on
18 average, smaller firms had significantly larger risk-adjusted returns than larger
19 firms. The author also concluded that the size effect was "…most pronounced for
20 the smallest firms in the sample." Since then, additional empirical research has
21 focused on explaining the size effect as a function of lower trading volume and

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[71] R. W. Banz, *The Relationship Between Return and Market Value of Common Stocks*, Journal of Financial Economics, 1981.

other factors, but the proposition that Beta fails to reflect the risks of smaller firms persists.[72]

In 1994, Fama and French also focused on the issue of whether the CAPM adequately explained security returns and proposed a "three factor" model for expected security returns. Those factors include: (1) the covariance with the market; (2) size; and (3) financial risk as determined by the book-to-market ratio. As explained by Morningstar, "Fama and French found that the returns on stocks are better explained as a function of a company's size (capturing the size effect) and its book-to-market ratio (capturing the financial distress of a firm) in addition to the single market factor of the CAPM."[73]

Q. Have you performed a similar analysis for your proxy group?

A. Yes, I have. The inputs needed to run the Fama-French model are available on Professor French's website.[74] In order to determine whether the smaller companies in the proxy group are susceptible to the Size Effect, I calculated the average daily returns for Laclede Gas, South Jersey Industries, and Southwest Gas. I then developed a regression equation in which their average daily returns were modeled as a function of the Fama-French Factors. As shown in Table 11 (below), the size factor (SMB, or "Small Minus Big") was positive and highly

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[72] *See*, for example, Mario Levis, *The record on small companies: A review of the evidence*, Journal of Asset Management, March, 2002.

[73] Morningstar, Ibbotson SBBI 2009 Valuation Yearbook, at 111.

[74] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

statistically significant. Based on those results, I continue to believe that the Size Effect is a reasonable consideration in determining the Company's cost of equity.

Table 11: Fama-French Regression Statistics

	Coefficients	Standard Error	T Stat
Intercept	0.000325	0.00021	1.547515
Mkt-RF	0.006431	0.00015	42.92329
SMB	0.0045	0.000353	12.75213
HML	0.001991	0.000309	6.448154

Q. Are you aware that in past proceedings the Commission has denied the application of a small size adjustment?

A. Yes, I am. To be clear, I have not made a specific adjustment to the Company's ROE in recognition of its relatively small size. Rather, as with the other risks noted in my Direct Testimony, I took the small size effect into consideration in determining where the Company's ROE falls within the range of analytical results.

C. Flotation Cost Adjustment

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. Over what periods of time are issuance and flotation costs recognized?

A. The issuance costs associated with long-term debt reflect the incurrence of issuance costs that can be assigned a definite life or period of applicability. These costs are amortized over the life of the debt issuance, either to maturity or upon retirement of the debt. Equity issuance or flotation costs, however, do not have a definite period of applicability, but rather have an infinite life.

Q. Is the need for a flotation cost adjustment recognized by the academic and financial communities?

A. Yes. The need to reimburse investors 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:

> Flotation costs occur when new issues of stock or debt are sold to the public. The firm usually incurs several kinds of flotation or

> transaction costs, which reduce the actual proceeds received by the firm. 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 firm's required returns on these proceeds equate to a higher return to compensate for the additional costs. Flotation costs can be accounted for either by amortizing the cost, thus reducing the cash flow to discount, or by incorporating the cost into the cost of capital. Because flotation costs are not typically applied to operating cash flow, one must incorporate them into the cost of capital.[75]

Q. Do the DCF and CAPM models already incorporate investor expectations of a return that compensates for flotation costs?

A. No. All the models used to estimate the appropriate return on equity 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 in determining where within the range of reasonable returns National Grid NH's return on equity should fall.

Q. Is there academic support for this approach?

A. Yes. Several researchers 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, noted that:

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[75] Shannon P. Pratt, *Cost of Capital Estimation and Applications*, Second Edition, at 220-221.

> Under the conventional approach in other words, the flotation cost adjustment is not made to reflect current or future financing costs … it is made to compensate investors for costs incurred in preceding stock issues.[76]

Q. Why should flotation costs be taken into account as part of the cost of capital if they are for past costs incurred by shareholders?

A. Flotation costs are part of the invested costs of the utility, which are properly reflected on the balance sheet of the utility as "paid in capital." Flotation costs are not expenses and are not reflected in the income statement. Flotation costs, like investments in rate base or the issuance costs of long-term debt, are incurred over time. As a result, the great majority of a utility's flotation costs is incurred prior to the test year, but remains part of the cost structure that exists during the test year and beyond, and as such, should be recognized for ratemaking purposes.

Q. Have you calculated the effect of flotation costs on the return on equity?

A. Yes. I modified the DCF calculation to calculate the dividend yield that would reimburse investors for direct issuance costs. In Attachment RBH-12, I included the two most recent pure common equity issuances, where available, for the proxy group companies together with the most recent equity issuance of KeySpan Corporation. Based on the weighted average issuance costs provided in Attachment RBH-12, I believe that a flotation cost of 2.65 percent reasonably

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[76] Cleveland S. Patterson, *Flotation Cost Allowance in Rate of Return Regulation: Comment*, The Journal of Finance, Vol. XXXVIII, No. 4, September 1983, at 1337 (clarification and emphasis added).

represents the equity issuance costs for KeySpan Corporation. My analysis of flotation costs suggests an adjustment to the ROE of 0.11 percent (11 basis points).

Q. Are you aware that the New Hampshire Commission has declined to allow flotation costs in previous decisions, particularly when the company is not contemplating issuance of common stock in the near term?

A. Yes, I am. However, I would ask the Commission to consider that flotation costs are legitimately incurred costs that are not reflected in the DCF or CAPM results, nor, without some kind of adjustment, are those costs embedded in any other part of the Company's revenue requirement calculation. In establishing the cost of long-term debt, the Commission allows the utility to recover legitimately incurred debt issuance expenses; the Commission should give the same consideration to the recovery of equity issuance costs. Moreover, equity issuance costs should be recovered by the Company regardless of whether or not it plans to issue common stock in the near term since the costs incurred in previous equity issuances, the proceeds of which have been invested in the Company's rate base, were necessary to acquire that capital.

Q. Are you proposing to adjust your recommended ROE by 11 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 the Company's ROE falls within the range of results.

VIII. STAY-OUT COMMITMENT

Q. Has the Company indicated its willingness to commit to a period of time during which it would not seek rate relief?

A. Yes. As noted in the testimony of Mr. Stavropoulos, the Company has indicated a willingness to enter into an agreement not to seek rate relief for a period of two years after the Commission issues an order in this proceeding.

Q. What are the implications for the Company's cost of equity if it were to agree to a stay-out period?

A. It is important to consider the potential effect that increases in the general level of interest rates would have on the Company's stock price and its cost of equity. As discussed in Section VI, there is a strong positive relationship between the level of long-term interest rates and the proxy companies' cost of equity. Given the historically low level of long-term Treasury rates, it is reasonable to assume that on balance, long-term rates are more likely to increase than decrease during the term of the Company's proposed stay-out period. In fact, the Blue Chip Financial

1 Forecast consensus projected 30-year Treasury yield for the years 2013 and 2014
2 are 5.80 percent and 5.90 percent,[77] respectively, while the 30-day average long-
3 term Treasury yield (*i.e.*, the yield on 30-year Treasury securities) was
4 approximately 4.61 percent as of January 29, 2010. The projected increase of
5 approximately 130 to 140 basis points represents a significant element of risk for
6 the Company.

7

8 By agreeing to a "stay-out period", the Company would forgo the option to
9 request rate relief as a result of lower than expected earnings, or increases in the
10 cost of capital. Given the prospect for increased interest rates over the term of the
11 stay-out period, and in light of the potential for the Company to earn less than its
12 required rate of return, the option to request rate relief has certain value; forgoing
13 that option represents a distinct cost. Consequently, it is reasonable and
14 appropriate to compensate the Company for that cost.

15

16 **Q. Have other regulatory commissions provided for a stay-out premium?**

17 A. Yes. It is my understanding that the New York Public Service Commission (the
18 "NYPSC"), for example, has established precedent under which the stay-out
19 premium has been calculated by taking one-half of the difference between the
20 five-year average yields on three and one-year Treasury Notes. I further

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[77] Blue Chip Financial Forecasts, Vol. 28, No. 12, December 1, 2009, at 14.

1 understand that the NYPSC staff has noted that such a calculation is meant to give
2 guidance to the commission in arriving at an appropriate premium.[78]
3
4 **Q. What are your concerns with that approach?**
5 A. My primary concern is that the methodology for calculating the premium appears
6 unrelated to the underlying risks that it is intended to mitigate. If a substantial
7 element of risk is the dilution of the earned return on equity resulting from
8 unforeseen events (including increases in the required cost of capital), there is no
9 apparent relationship between that risk and the level of intermediate-term
10 Treasury yields. In that regard, it is unclear why the term difference between the
11 one and three-year yields would be more appropriate than the term difference
12 between, for example, the ten and 30-year Treasury yields. Moreover, the shape
13 and slope of the yield curve is not constant over time, such that a relatively flat
14 slope at the short-end of the curve may produce an inadequate premium relative to
15 that which would be derived from the long-end of the curve. Finally, it is unclear
16 how the 50.00 percent adjustment factor, applied to short-term Treasury yields,
17 relates to the mitigation of company-specific risks.
18
19 In addition, considering the recently unstable nature of the capital markets, it is
20 unclear why a five-year historical average difference between short-term interest
21 rates would be indicative of the incremental return requirements over the coming

---

[78] *See* Case 09-E-0428, Prepared Testimony of Staff Finance Panel, at 107, 108.

1 three years. For much the same reason that Staff argued in DG 08-009 that the
2 Market Risk Premium is a forward-looking parameter,[79] it stands to reason that
3 the stay-out premium also should at least consider forward-looking data.
4 Moreover, if the risk associated with the stay-out period is that the Company's
5 cost of equity will increase as a result of changes in the level of interest rates, then
6 (as discussed above) the relevant security is the 30-year Treasury securities. In
7 that case, a more appropriate measure of risk may be the difference the current
8 and projected 30-year Treasury yield.
9
10 **Q. Despite these concerns, did you calculate the stay-out premium using the**
11 **NYPSC's traditional approach?**
12 A. Yes, I did. Over the five year period ended January 29, 2010, the average yield
13 on the three-year Treasury Note was 3.32 percent, while the average yield on the
14 one-year Treasury Note was 3.04 percent. The difference between those two
15 average yields is 0.28 percent; one-half of that amount equals 0.14 percent, or 14
16 basis points. As Table 12 demonstrates, over the past five years, the difference
17 between the one and three-year yields has steadily increased, such that the
18 average difference over the twelve months ended January, 2010 was 0.99 percent
19 (99 basis points), which is more than three times higher than the five-year
20 average.

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[79] See Docket No. DG 08-009, Direct Testimony of Pradip K. Chattopadhyay, October 31, 2008, at 30 – 33.

Table 12: Average Term Spread – Three Year vs. One Year Treasury Yields

	3-year yield	1-year yield	Difference	Implied Premium
5-Year Average	3.32%	3.04%	0.28%	0.14%
4-Year Average	3.15%	2.87%	0.28%	0.14%
3-Year Average	2.59%	2.16%	0.43%	0.22%
2-Year Average	1.80%	1.06%	0.74%	0.37%
1-Year Average	1.46%	0.47%	0.99%	0.50%

Q. Did you also calculate the stay-out premium based on the difference in current and projected long-term Treasury yields?

A. Yes, I analyzed the difference between current and projected yields on 30-year Treasury bonds. As noted earlier, the current 30-day average yield on 30-year Treasury bonds is approximately 4.61 percent, while the projected yield is approximately 5.65 percent (average for the years 2012 and 2013, according to Blue Chip Financial Forecasts[80]). The difference between the current and projected average yields is 104 basis points; one-half of that difference is 52 basis points.

Q. What is your recommendation as to the appropriate level of a stay-out premium?

A. In my view, the projected increase in the level of long-term Treasury yields should be given consideration in the determination of the stay-out premium. Considering both the NYPSC's traditional approach (using the one-year

[80] Blue Chip Financial Forecasts, Vol. 28, No. 12, December 1, 2009, at 14.

1 averaging period) and the likelihood of increased long-term rates, I believe that a
2 premium of 50 basis points would reasonable and appropriate at this time. For the
3 purpose of maintaining consistency with the Company's methodology as applied
4 in New York, however, the premium would be based entirely on the average
5 difference between the three and one-year Treasury yields. Because the term
6 spread varies significantly depending on the choice of averaging period, I believe
7 that a reasonable approach would be to use the three-year average difference of 43
8 basis points. Based on 50.00 percent of that 43 basis point difference (rounded
9 down), the premium would be 20 basis points.

10

11 **IX. <u>COST OF DEBT</u>**

12 **Q. What cost of debt has the company requested in this proceeding?**

13 A. As discussed by Company Witness Adams and Lombardo, the Company has
14 requested a cost of debt of 6.99 percent (*see* Schedule 3-5). That cost rate reflects
15 both the interest rate associated with the long-term Inter-Company Promissory
16 Note (5.803 percent) and the amortization of unamortized issuance expenses and
17 call premiums associated with First Mortgage Bonds called in August, 2004.

18

19 **Q. Please discuss your analysis of the Company's cost of debt.**

20 A. It is my understanding that in Docket No. 06-122, the Commission approved a
21 Settlement Agreement wherein the parties agreed to the recovery of the call
22 premia associated with the First Mortgage Bonds that were called in August 2004,

as well as the interest rate on the long-term Inter-Company Promissory Note that are the two components of the Company's proposed cost of debt.[81] Therefore, it is my understanding that the Company's proposed cost of debt of 6.99 percent has been determined by the Commission to be reasonable.

X. CONCLUSIONS AND RECOMMENDATION

Q. What is your conclusion regarding a fair ROE for National Grid NH?

A. Based on the results presented in Table 13, I believe that a rate of return in the range of 10.30 percent to 11.30 percent represents the range of equity investors' required rate of return for investment in gas distribution utilities in today's capital markets. My recommended ROE considers the results of several methodological approaches, and reflects the capital market's perspective with respect to operating, financial and regulatory risks. Moreover, my recommended return balances the interests of customers and shareholders by enabling the Company to maintain its financial integrity and therefore its ability to attract capital at reasonable rates. In my view, after considering the many qualitative and quantitative factors that investors weigh when making investment decisions regarding companies such as National Grid NH, an ROE of 11.00 percent is reasonable and appropriate.

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[81] DG 06-122 *EnergyNorth Natural Gas, Inc. d/b/a/ KeySpan Energy Delivery New England*, Petition to Consolidate and Increase Short Term Debt Limits, Settlement Agreement January 18, 2008.

Table 13: Summary of Analytical Results

	Mean Low	Mean	Mean High
Constant Growth DCF – 30-Day Average	8.08%	9.66%	11.05%
Constant Growth DCF – 90-Day Average	8.23%	9.81%	11.20%
Constant Growth DCF – 180-Day Average	8.36%	9.94%	11.33%
Multi-Stage DCF- 30-Day Average		10.41%	
Multi-Stage DCF- 90-Day Average		10.57%	
Multi-Stage DCF- 180-Day Average		10.71%	
Market-to-book	8.20%	10.01%	12.36%
Supporting Methodologies			
CAPM Long Term Projected Treasury Yield and 12-month average Beta		11.17%	
CAPM 2010-2011 Projected Treasury Yield and 12-month average Beta		10.30%	
CAPM Long Term Projected Treasury Yield and long term average historical Beta		10.85%	
CAPM 2010-2011 Projected Treasury Yield and long term average historical Beta		9.98%	
Risk Premium (Authorized ROE and Moody's Baa Utility Bond yield)	10.46%	10.47%	10.59%
Other Factors			
Flotation Cost		0.11%	
Small Size Premium		0.72%	

Based on the capital structure provided in Order No. 24,777, the Company's 6.99 percent cost of debt that was approved by the Commission in Docket No. 06-122, and my recommended 11.00 percent Return on Equity, the Company's proposed overall Rate of Return is 8.995 percent (*see* Table 14, below).

Table 14: Proposed Overall Rate of Return

Component	Percent of Total	Cost Rate	Weighted Cost Rate
Common Equity	50.00%	11.00%	5.50%
Long Term Debt	50.00%	6.99%	3.495%
Total	100.00%		8.995%

If the Company were to agree not to seek rate relief for a two-year period, the Common Equity cost rate would increase from 11.00 percent to 11.20 percent, increasing the overall Rate of Return from 8.995 percent to 9.095 percent.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

Robert B. Hevert, CFA
President

Mr. Hevert is an economic and financial consultant with broad experience in the energy industry. He has an extensive background in the areas of corporate strategic planning, energy market assessment, corporate finance, mergers, and acquisitions, asset-based transactions, asset and business unit valuation, market entry strategies, strategic alliances, project development, feasibility and due diligence analyses. Mr. Hevert has significant management experience with both operating and professional services companies.

REPRESENTATIVE PROJECT EXPERIENCE

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.

Representative non-confidential clients have included:

- Conectiv generation asset divestiture
- Eastern Utilities Associates (prior to acquisition by National Grid, PLC) generation asset divestiture
- Niagara Mohawk – sale of Niagara Mohawk Energy
- Potomac Electric Company generation asset divestiture

Representative confidential engagements have included:

- Buy-side valuation and assessment of merchant generation assets in Midwestern U.S.
- Buy-side due diligence and valuation of wholesale energy marketing companies in Eastern and Midwestern U.S.
- Buy-side due diligence of natural gas distribution assets in Northeastern U.S.
- Financial feasibility study of natural gas pipeline in upper Midwestern U.S.

- Financial valuation of natural gas pipeline in Southwestern U.S.

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. Also performed rate of return and cost of service analyses for municipally owned gas and electric utilities. 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.

Representative engagements have included:

- Performing rate of return analyses for use in cost of service analyses on behalf of municipally owned gas and electric utilities in the Southeastern and Midwestern U.S.
- Developing merchant function exit strategies for Northeastern U.S. natural gas distribution companies
- Developing regulatory and ratemaking strategy for mergers including several Northeastern natural gas distribution companies

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 the proposed transfer of power purchase agreements, procurement of residual service electric supply, the legal separation of generation assets, and specific financing transactions. Services provided also included 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.

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.

Representative engagements have included:

- Managing assessments of the NYPOOL, NEPOOL and PJM markets for major North American energy companies considering entering or expanding their presence in those markets
- Assessment of ECAR, MAPP, MAIN and SPP markets for a large U.S. integrated utility considering acquisition of additional electric generation assets
- Assessment of natural gas pipeline and storage capacity in the SERC and FRCC markets for a major international energy company

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, Energy Ventures, 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.

Representative engagements have included:

- Developing and facilitating executive level strategic planning retreats for Northeastern natural gas distribution companies
- Developing organization and business process redesign plans for municipally owned gas/electric/water utility in the Southeastern U.S.
- Reviewing and revising corporate merchant generation business plans for Canadian and U.S. integrated utilities
- Advising client personnel in development of business unit level strategic plans for various natural gas distribution companies

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PROFESSIONAL HISTORY

Concentric Energy Advisors, Inc. (2002 – Present)
President

Navigant Consulting, Inc. (1997 – 2001)
Managing Director (2000 – 2001)
Director (1998 – 2000)
Vice President, REED Consulting Group (1997 – 1998)

REED Consulting Group (1997)
Vice President

Bay State Gas Company (1987 – 1997)
Vice President, Energy Ventures 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
Arkansas Public Service Commission				
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Arkansas Gas	01/07	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Arkansas Gas	Docket No. 06-161-U	Return on Equity
Colorado Public Utilities Commission				
Atmos Energy Corporation	07/09	Atmos Energy Colorado-Kansas Division	Docket No. 09AL-507G	Return on Equity (gas)
Xcel Energy	12/06	Public Service Company of Colorado	Docket No. 06S-656G	Return on Equity (gas)
Xcel Energy	04/06	Public Service Company of Colorado	Docket No. 06S-234EG	Return on Equity (electric)
Xcel Energy	08/05	Public Service Company of Colorado	Advice Letter No. 94-Steam	Return on Equity (steam)
Xcel Energy	05/05	Public Service Company of Colorado	Docket No. 05-264G	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. 05-03-17PH02	Return on Equity
Connecticut Natural Gas Corporation	12/07	Connecticut Natural Gas Corporation	Docket No. 06-03-04PH02	Return on Equity
Federal Energy Regulatory Commission				
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. RP09-809-000	Return on Equity
Spectra Energy	02/08	Saltville Gas Storage	Docket No. RP08-257-000	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. RP07-541-000	Return on Equity
Southwest Gas Storage Company	06/07	Southwest Gas Storage Company	Docket No. RP07-34-000	Return on Equity
Sea Robin Pipeline LLC	06/07	Sea Robin Pipeline L.L.C.	Docket No. RP07-513-000	Return on Equity
Transwestern Pipeline Company	09/06	Transwestern Pipeline Company	Docket No. RP06-614-000	Return on Equity
GPU International and Aquila	11/00	GPU International	Docket No. EC01-24-000	Market Power Study

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Maine Public Utilities Commission				
Northern Utilities, Inc.	07/95	Northern Utilities	Maine PUC	Gas Distribution System Expansion
Massachusetts Department of Public Utilities				
National Grid	08/09	Massachusetts Electric Company d/b/a National Grid	D.P.U. 09-39	Revenue Decoupling and Return on Equity
National Grid	08/09	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	D.P.U. 09-38	Return on Equity – Solar Generation
Bay State Gas Company	04/09	Bay State Gas Company	D.T.E. 09-30	Return on Equity
NSTAR Electric	09/04	NSTAR Electric	D.T.E. 04-85	Divestiture of Power Purchase Agreement
NSTAR Electric	08/04	NSTAR Electric	D.T.E. 04-78	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	D.T.E. 04-68	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	D.T.E. 04-61	Divestiture of Power Purchase Agreement
NSTAR Electric	06/04	NSTAR Electric	D.T.E. 04-60	Divestiture of Power Purchase Agreement
Unitil Corporation	01/04	Fitchburg Gas and Electric	D.T.E. 03-52	Integrated Resource Plan; Gas Demand Forecast
Bay State Gas Company	01/93	Bay State Gas Company	DPU 93-14	Long Term Debt Financing
Bay State Gas Company	01/91	Bay State Gas Company	DPU 91-25	Long Term Debt Financing
Minnesota Public Utilities Commission				
Minnesota Power a division of ALLETE, Inc.	11/09	Minnesota Power	Docket No. E015/GR-09-1151	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	11/08	CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-08-1075	Return on Equity
Otter Tail Power Corporation	10/07	Otter Tail Power Company	Docket No. E017/GR-07-1178	Return on Equity
Xcel Energy	11/05	NSP-Minnesota	Docket No. E002/GR-05-1428	Return on Equity (electric)
Xcel Energy	09/04	NSP Minnesota	Docket No. G002/GR-04-1511	Cost of Capital (gas)

SPONSOR	DATE	CASE / APPLICANT	DOCKET NO.	SUBJECT
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
New Hampshire Public Utilities Commission				
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				
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	BPU Docket No. EM05121058	Market Value of Electric Generation Assets; Auction
Conectiv	06/03	Atlantic City Electric Company	BPU Docket No. EO03020091	Market Value of Electric Generation Assets; Auction Process
New Mexico Public Regulation Commission				
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	07/07	Southwestern Public Service Company	Case No. 07-00319-UT	Return on Equity (electric)
New York State Public Service Commission				
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 Dakota Public Service Commission				
Otter Tail Power Company	11/08	Otter Tail Power Company	Docket No. 08-862	Return on Equity (electric)
Oklahoma Corporation Commission				

SPONSOR	DATE	CASE / APPLICANT	DOCKET NO.	SUBJECT
CenterPoint Energy Resources Corp., D/B/A CenterPoint Energy Oklahoma Gas	03/09	CenterPoint Energy Oklahoma Gas	Docket No. PUD200900055	Return on Equity
Rhode Island Public Utilities Commission				
National Grid RI – Gas	08/08	National Grid RI – Gas	Docket No. 3943	Revenue Decoupling and Return on Equity
South Dakota Public Utilities Commission				
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				
Texas-New Mexico Power Company	08/08	Texas-New Mexico Power Company	Docket No. 36025	Return on Equity (electric)
Xcel Energy	05/06	Southwestern Public Service	SOAH Docket No. 473-06-2536 Docket No. 32766	Return on Equity (electric)
Texas Railroad Commission				
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/09	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 9902	Return on Equity
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Texas Gas	03/08	CenterPoint Energy Resources Corp. 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				
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-2005-00098	Merger Synergies
Dominion Resources	10/01	Virginia Electric and Power Company	Case No. PUE000584	Corporate Structure and Electric Generation Strategy

30-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call EPS Growth	BR + SV	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
AGL Resources	AGL	1.72	36.45	4.72%	4.82%	4.50%	3.50%	4.00%	5.09%	4.27%	8.30%	9.09%	9.93%
Laclede Group	LG	1.58	33.36	4.74%	4.83%	3.00%	3.50%	3.50%	6.56%	4.14%	7.81%	8.97%	11.45%
Nicor Inc.	GAS	1.86	41.95	4.43%	4.51%	4.20%	1.50%	4.35%	4.32%	3.59%	5.97%	8.11%	8.88%
Northwest Nat. Gas	NWN	1.66	44.76	3.71%	3.81%	5.70%	5.00%	6.00%	5.29%	5.50%	8.80%	9.31%	9.82%
Piedmont Natural Gas	PNY	1.08	26.42	4.09%	4.22%	6.30%	8.00%	7.00%	4.61%	6.48%	8.79%	10.70%	12.25%
South Jersey Industries	SJI	1.32	38.46	3.43%	3.59%	12.40%	5.50%	11.67%	7.73%	9.32%	9.03%	12.92%	16.05%
Southwest Gas	SWX	0.95	28.60	3.32%	3.42%	7.00%	6.00%	6.00%	4.01%	5.75%	7.40%	9.17%	10.44%
WGL Holdings Inc.	WGL	1.47	33.05	4.45%	4.55%	N/A	4.00%	5.00%	4.39%	4.46%	8.54%	9.01%	9.56%
		PROXY GROUP MEAN		4.11%	4.22%	6.16%	4.63%	5.94%	5.25%	5.44%	8.08%	9.66%	11.05%
									Flotation Cost		0.11%	0.11%	0.11%
											8.19%	9.77%	11.16%

Notes:
[1] Source: Bloomberg
[2] Source: Bloomberg. Based on indicated number of days historical average.
[3] Equals Col. [1] / Col. [2]
[4] Equals (Col. [1] x (1 + (0.5 x Col. [9]))) / Col. [2]
[5] Source: Zacks
[6] Source: Value Line
[7] Source: Yahoo! Finance
[8] Source: Attachment RBH-3
[9] Equals average of Cols [5], [6], [7] & [8]
[10] Equals Min. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Min. (Cols. [5], [6], [7] & [8]))))
[11] Equals Col. [4] + Col. [9]
[12] Equals Max. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Max. (Cols. [5], [6], [7] & [8]))))

90-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call EPS Growth	BR + SV	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
AGL Resources	AGL	1.72	35.85	4.80%	4.90%	4.50%	3.50%	4.00%	5.09%	4.27%	8.38%	9.17%	10.01%
Laclede Group	LG	1.58	32.49	4.86%	4.96%	3.00%	3.50%	3.50%	6.56%	4.14%	7.94%	9.10%	11.58%
Nicor Inc.	GAS	1.86	39.67	4.69%	4.77%	4.20%	1.50%	4.35%	4.32%	3.59%	6.22%	8.37%	9.14%
Northwest Nat. Gas	NWN	1.66	43.58	3.81%	3.91%	5.70%	5.00%	6.00%	5.29%	5.50%	8.90%	9.41%	9.92%
Piedmont Natural Gas	PNY	1.08	24.70	4.37%	4.51%	6.30%	8.00%	7.00%	4.61%	6.48%	9.08%	10.99%	12.55%
South Jersey Industries	SJI	1.32	36.82	3.58%	3.75%	12.40%	5.50%	11.67%	7.73%	9.32%	9.18%	13.08%	16.21%
Southwest Gas	SWX	0.95	27.06	3.51%	3.61%	7.00%	6.00%	6.00%	4.01%	5.75%	7.59%	9.36%	10.63%
WGL Holdings Inc.	WGL	1.47	33.02	4.45%	4.55%	N/A	4.00%	5.00%	4.39%	4.46%	8.54%	9.02%	9.56%
		PROXY GROUP MEAN		4.26%	4.37%	6.16%	4.63%	5.94%	5.25%	5.44%	8.23%	9.81%	11.20%
									Flotation Cost		0.11%	0.11%	0.11%
											8.34%	9.92%	11.31%

Notes:
[1] Source: Bloomberg
[2] Source: Bloomberg. Based on indicated number of days historical average.
[3] Equals Col. [1] / Col. [2]
[4] Equals (Col. [1] x (1 + (0.5 x Col. [9]))) / Col. [2]
[5] Source: Zacks
[6] Source: Value Line
[7] Source: Yahoo! Finance
[8] Source: Attachment RBH-3
[9] Equals average of Cols [5], [6], [7] & [8]
[10] Equals Min. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Min. (Cols. [5], [6], [7] & [8]))))
[11] Equals Col. [4] + Col. [9]
[12] Equals Max. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Max. (Cols. [5], [6], [7] & [8]))))

180-DAY CONSTANT GROWTH DCF

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
Company		Annualized Dividend	Stock Price	Dividend Yield	Expected Dividend Yield	Zacks EPS Growth	Value Line EPS Growth	First Call EPS Growth	BR + SV	Average Growth Rate	Low DCF ROE	Mean DCF ROE	High DCF ROE
AGL Resources	AGL	1.72	34.11	5.04%	5.15%	4.50%	3.50%	4.00%	5.09%	4.27%	8.63%	9.42%	10.26%
Laclede Group	LG	1.58	32.63	4.84%	4.94%	3.00%	3.50%	3.50%	6.56%	4.14%	7.91%	9.08%	11.56%
Nicor Inc.	GAS	1.86	37.32	4.98%	5.07%	4.20%	1.50%	4.35%	4.32%	3.59%	6.52%	8.67%	9.44%
Northwest Nat. Gas	NWN	1.66	43.43	3.82%	3.93%	5.70%	5.00%	6.00%	5.29%	5.50%	8.92%	9.42%	9.94%
Piedmont Natural Gas	PNY	1.08	24.34	4.44%	4.58%	6.30%	8.00%	7.00%	4.61%	6.48%	9.15%	11.06%	12.61%
South Jersey Industries	SJI	1.32	35.85	3.68%	3.85%	12.40%	5.50%	11.67%	7.73%	9.32%	9.28%	13.18%	16.31%
Southwest Gas	SWX	0.95	25.05	3.79%	3.90%	7.00%	6.00%	6.00%	4.01%	5.75%	7.88%	9.65%	10.92%
WGL Holdings Inc.	WGL	1.47	32.58	4.51%	4.61%	N/A	4.00%	5.00%	4.39%	4.46%	8.60%	9.08%	9.62%
		PROXY GROUP MEAN		4.39%	4.51%	6.16%	4.63%	5.94%	5.25%	5.44%	8.36%	9.94%	11.33%
									Flotation Cost		0.11%	0.11%	0.11%
											8.47%	10.06%	11.45%

Notes:
[1] Source: Bloomberg
[2] Source: Bloomberg. Based on indicated number of days historical average.
[3] Equals Col. [1] / Col. [2]
[4] Equals (Col. [1] x (1 + (0.5 x Col. [9]))) / Col. [2]
[5] Source: Zacks
[6] Source: Value Line
[7] Source: Yahoo! Finance
[8] Source: Attachment RBH-3
[9] Equals average of Cols [5], [6], [7] & [8]
[10] Equals Min. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Min. (Cols. [5], [6], [7] & [8]))))
[11] Equals Col. [4] + Col. [9]
[12] Equals Max. (Cols. [5], [6], [7] & [8]) + (Col. [3] x (1 + (0.5 x Max. (Cols. [5], [6], [7] & [8]))))

RETENTION GROWTH

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
Company	Ticker	Payout Ratio 1 ("All Div'ds to Net Prof" 2009)	Payout Ratio 2 ("All Div'ds to Net Prof" 2010)	Payout Ratio 3 ("All Div'ds to Net Prof" 12-14)	Average Retention Ratio	Value Line Return on Book Value 1 ("Return on Com Eq" 2009)	Value Line Return on Book Value 2 ("Return on Com Eq" 2010)	Value Line Return on Book Value 3 ("Return on Com Eq" 12-14)	Average Return on Book Value	B*R	Common Shares O/S 2010	Common Shares O/S 12-14	Common Shares Growth Rate	Est. 2009 High	Est. 2009 Low	Est. 2009 Mid	2010 Book Value per sh	Market/ Book Ratio	"S"	"V"	S x V	BR + SV
AGL Resources	AGL	63.00%	61.00%	57.00%	39.67%	12.00%	12.50%	13.00%	12.50%	4.96%	78.50	80.00	0.38%	37.50	24.00	30.75	22.95	1.34	0.51%	25.37%	0.13%	5.09%
Laclede Group	LG	54.00%	60.00%	55.00%	43.67%	12.00%	11.00%	11.00%	11.33%	4.95%	23.00	26.00	2.48%	48.30	29.30	38.80	23.55	1.65	4.09%	39.30%	1.61%	6.56%
Nicor Inc.	GAS	67.00%	65.00%	60.00%	36.00%	12.50%	12.00%	11.50%	12.00%	4.32%	45.50	45.50	0.00%	40.20	27.50	33.85	23.30	1.45	0.00%	31.17%	0.00%	4.32%
Northwest Nat. Gas	NWN	56.00%	59.00%	61.00%	41.33%	11.50%	11.00%	11.00%	11.17%	4.62%	26.50	28.00	1.11%	46.10	37.70	41.90	26.10	1.61	1.78%	37.71%	0.67%	5.29%
Piedmont Natural Gas	PNY	67.00%	60.00%	58.00%	38.33%	12.50%	14.00%	14.00%	13.50%	5.18%	72.00	70.00	-0.56%	32.00	20.70	26.35	13.15	2.00	-1.13%	50.09%	-0.56%	4.61%
South Jersey Industries	SJI	51.00%	50.00%	51.00%	49.33%	12.50%	13.50%	14.50%	13.50%	6.66%	30.00	32.00	1.30%	40.80	32.00	36.40	20.00	1.82	2.36%	45.05%	1.07%	7.73%
Southwest Gas	SWX	51.00%	49.00%	46.00%	51.33%	8.00%	8.00%	8.50%	8.17%	4.19%	47.00	50.00	1.25%	27.40	17.10	22.25	26.05	0.85	1.06%	-17.08%	-0.18%	4.01%
WGL Holdings Inc.	WGL	58.00%	65.00%	59.00%	39.33%	12.00%	10.50%	11.00%	11.17%	4.39%	50.00	50.00	0.00%	35.50	28.60	32.05	22.80	1.41	0.00%	28.86%	0.00%	4.39%

Notes:
[1] Source: Value Line
[2] Source: Value Line
[3] Source: Value Line
[4] Equals 1 - Mean (Cols. [1], [2] & [3])
[5] Source: Value Line
[6] Source: Value Line
[7] Source: Value Line
[8] Mean (Cols. [5], [6] & [7])
[9] Equals Col. [4] x Col. [8]
[10] Source: Value Line
[11] Source: Value Line
[12] Equals ((Col. [11] / Col. [10]) ^ 0.2) - 1
[13] Source: Value Line
[14] Source: Value Line
[15] Equals Mean (Cols. [13] & [14])
[16] Source: Value Line
[17] Equals Col. [15] / Col. [16]
[18] Equals Col. [12] x Col. [17]
[19] Equals 1 - (1 / Col. [17])
[20] Equals Col. [18] x Col. [19]
[21] Equals Col. [9] + Col. [20]

Growth Rate Regression Analysis

SUMMARY OUTPUT

Y=Relative P/E
March 04-June 08

Regression Statistics	
Multiple R	0.210450345
R Square	0.044289348
Adjusted R Square	0.023051333
Standard Error	6.380427504
Observations	139

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	254.6866506	84.89555	2.085380798	0.105085647
Residual	135	5495.830443	40.70986		
Total	138	5750.517094			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.426398879	1.9201093	0.22207	0.8245949	-3.370986399	4.223784158	-3.370986399	4.223784158
Proj. EPS	54.72856553	23.43500128	2.335334	0.020999848	8.381345152	101.0757859	8.381345152	101.0757859
Proj. DPS	-24.90538913	29.97142949	-0.830971	0.407457266	-84.17965292	34.36887465	-84.17965292	34.36887465
Proj. BVPS	-26.17602026	27.72029215	-0.944291	0.346707944	-80.99822718	28.64618665	-80.99822718	28.64618665

Growth Rate Regression Analysis

SUMMARY OUTPUT

Y=Relative P/E
March 04-June 08

0
Page 2 of 4

Regression Statistics	
Multiple R	0.181383042
R Square	0.032899808
Adjusted R Square	0.025840682
Standard Error	6.371312407
Observations	139

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	189.1909078	189.1909	4.660606751	0.032604328
Residual	137	5561.326186	40.59362		
Total	138	5750.517094			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-1.271319086	1.371408494	-0.927017	0.355547908	-3.983185007	1.440546834	-3.983185007	1.440546834
Proj. EPS	49.34551246	22.85737922	2.158844	0.032604328	4.146618031	94.54440689	4.146618031	94.54440689

SUMMARY OUTPUT

Y=Relative P/E
March 04-June 08

Regression Statistics	
Multiple R	0.064622426
R Square	0.004176058
Adjusted R Square	-0.00309273
Standard Error	6.465236968
Observations	139

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	24.01449265	24.01449	0.574519165	0.449770545
Residual	137	5726.502601	41.79929		
Total	138	5750.517094			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.116152626	1.036154497	2.042314	0.043038731	0.067228413	4.165076839	0.067228413	4.165076839
Proj. DPS	-23.00104668	30.34557276	-0.75797	0.449770545	-83.00732852	37.00523516	-83.00732852	37.00523516

Growth Rate Regression Analysis

0

SUMMARY OUTPUT

Y=Relative P/E
March 04-June 08

Regression Statistics	
Multiple R	0.04032237
R Square	0.001625894
Adjusted R Square	-0.005661509
Standard Error	6.473509954
Observations	139

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	9.34972868	9.349729	0.22311017	0.63743182
Residual	137	5741.167365	41.90633		
Total	138	5750.517094			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.081065453	1.444876972	1.440306	0.152062126	-0.776079328	4.938210234	-0.776079328	4.938210234
Proj.BVPS	-12.98048787	27.48092404	-0.472345	0.63743182	-67.32212399	41.36114826	-67.32212399	41.36114826

Regression

Variables Entered/Removed(a)

Model	Variables Entered	Variables Removed	Method
1	PROJEPS	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: RELPE

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.181	0.033	0.026	6.37131

a. Predictors: (Constant), PROJEPS

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	189.191	1	189.191	4.661	0.033
	Residual	5,561.326	137	40.594		
	Total	5,750.517	138			

a. Predictors: (Constant), PROJEPS
b. Dependent Variable: RELPE

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.271	1.371		-0.927	0.356
	PROJEPS	49.346	22.857	0.181	2.159	0.033

a. Dependent Variable: RELPE

Excluded Variables(b)

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	PROJDPS	-0.071	-0.847	0.398	-0.072	0.999
	PROJBVPS	-0.083	-0.959	0.339	-0.082	0.955

MARKET-TO-BOOK APPROACH

Company	Ticker	[1] Average Return on Equity	[2] Average Retention Ratio	[3] Market / Book Ratio	[4] Growth in Shares	[5] S x V	[6] Internal Growth	[7] External Growth	[8] Int. + Ext. Growth	[9] Market-to-Book Est. Div. Yield	[10] Internal Growth Rate	[11] Internal Cost of Equity	[12] External Growth	[13] Market-to-Book Estimate
AGL Resources	AGL	12.50%	39.67%	1.34	0.51%	0.17%	4.96%	0.17%	5.13%	5.63%	4.96%	10.59%	0.17%	10.76%
Laclede Group	LG	11.33%	43.67%	1.65	4.09%	2.65%	4.95%	2.65%	7.60%	3.88%	4.95%	8.82%	2.65%	11.47%
Nicor Inc.	GAS	12.00%	36.00%	1.45	0.00%	0.00%	4.32%	0.00%	4.32%	5.29%	4.32%	9.61%	0.00%	9.61%
Northwest Nat. Gas	NWN	11.17%	41.33%	1.61	1.78%	1.08%	4.62%	1.08%	5.69%	4.08%	4.62%	8.70%	1.08%	9.77%
Piedmont Natural Gas	PNY	13.50%	38.33%	2.00	-1.13%	-1.13%	5.18%	-1.13%	4.04%	4.15%	5.18%	9.33%	-1.13%	8.20%
South Jersey Industries	SJI	13.50%	49.33%	1.82	2.36%	1.94%	6.66%	1.94%	8.60%	3.76%	6.66%	10.42%	1.94%	12.36%
Southwest Gas	SWX	8.17%	51.33%	0.85	1.06%	-0.16%	4.19%	-0.16%	4.04%	4.65%	4.19%	8.85%	-0.16%	8.69%
WGL Holdings Inc.	WGL	11.17%	39.33%	1.41	0.00%	0.00%	4.39%	0.00%	4.39%	4.82%	4.39%	9.21%	0.00%	9.21%
	AVERAGE	11.67%	42.38%	1.52	1.08%	0.57%	4.91%	0.57%	5.48%	4.53%	4.91%	9.44%	0.57%	10.01%
													Min.	8.20%

Notes:
[1] Source: Attachment RBH-3
[2] Source: Attachment RBH-3
[3] Source: Attachment RBH-3
[4] Source: Attachment RBH-3
[5] Equals (Col. [3] - 1) x Col. [4]
[6] Equals Col. [1] x Col. [2]
[7] Equals Col. [5]
[8] Eqals Col. [6] + Col. [7]
[9] Equals ((1 - Col. [2]) x Col. [1]) / Col. [3]
[10] Equals Col. [6]
[11] Equals Col. [9] + Col. [10]
[12] Equals Col. [7]
[13] Equals Col. [11] + Col. [12]

MULTI-STAGE DCF MODEL – 30-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
		Stock	Dividend	2009	EPS	Sustainable	GDP		Payout Ratio		Solver Cells			Near Term	Intermediate	Long Term
Company	Ticker	Price	Yield	EPS	Growth	Growth	Growth	2009	2013	2023	Delta	k(e)	Solution	Growth	Growth	Growth
AGL Resources	AGL	$ 36.45	4.72%	$ 2.75	4.00%	5.09%	5.87%	63.00%	57.00%	65.00%	$ 0.00	10.45%	10.45%	4.00%	4.94%	5.95%
Laclede Group	LG	$ 33.36	4.74%	$ 2.92	3.33%	6.56%	5.87%	54.00%	55.00%	65.00%	$ 0.00	10.91%	10.91%	3.33%	4.60%	5.95%
Nicor Inc.	GAS	$ 41.95	4.43%	$ 2.75	3.35%	4.32%	5.87%	67.00%	60.00%	65.00%	$ 0.00	9.76%	9.76%	3.35%	4.61%	5.95%
Northwest Nat. Gas	NWN	$ 44.76	3.71%	$ 2.85	5.57%	5.29%	5.87%	56.00%	61.00%	65.00%	$ 0.00	10.11%	10.11%	5.57%	5.72%	5.95%
Piedmont Natural Gas	PNY	$ 26.42	4.09%	$ 1.60	7.10%	4.61%	5.87%	67.00%	58.00%	65.00%	$ 0.00	10.26%	10.26%	7.10%	6.49%	5.95%
South Jersey Industries	SJI	$ 38.46	3.43%	$ 2.35	9.86%	7.73%	5.87%	51.00%	51.00%	65.00%	$ 0.00	10.83%	10.83%	9.86%	7.86%	5.95%
Southwest Gas	SWX	$ 28.60	3.32%	$ 1.90	6.33%	4.01%	5.87%	51.00%	46.00%	65.00%	$ 0.00	10.29%	10.29%	6.33%	6.10%	5.95%
WGL Holdings Inc.	WGL	$ 33.05	4.45%	$ 2.53	4.50%	4.39%	5.87%	58.00%	59.00%	65.00%	$ 0.00	10.65%	10.65%	4.50%	5.19%	5.95%
MEAN:		$ 35.38	4.11%	$ 2.46	5.51%	5.25%	5.87%	58.38%	55.88%	65.00%			10.41%	5.51%	5.69%	5.95%
												Flotation Adjustment	0.11%			
												Adjusted ROE	10.52%			

Projected Annual Data
Earnings per Share

		[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	[32]
Company	Ticker	2008	**2009**	2010	2011	2012	**2013**	2014	2015	2016	2017	**2018**	2019	2020	2021	2022	**2023**	Terminal Growth
AGL Resources	AGL	$ 2.71	$ 2.75	$ 2.86	$ 2.97	$ 3.09	$ 3.22	$ 3.36	$ 3.51	$ 3.68	$ 3.88	$ 4.09	$ 4.33	$ 4.59	$ 4.86	$ 5.14	$ 5.44	5.87%
Laclede Group	LG	$ 2.64	$ 2.92	$ 3.02	$ 3.12	$ 3.22	$ 3.33	$ 3.45	$ 3.60	$ 3.76	$ 3.95	$ 4.17	$ 4.41	$ 4.67	$ 4.95	$ 5.24	$ 5.55	5.87%
Nicor Inc.	GAS	$ 2.63	$ 2.75	$ 2.84	$ 2.94	$ 3.04	$ 3.14	$ 3.26	$ 3.39	$ 3.55	$ 3.73	$ 3.93	$ 4.16	$ 4.41	$ 4.66	$ 4.94	$ 5.23	5.87%
Northwest Nat. Gas	NWN	$ 2.57	$ 2.85	$ 3.01	$ 3.18	$ 3.35	$ 3.54	$ 3.74	$ 3.95	$ 4.18	$ 4.42	$ 4.67	$ 4.95	$ 5.24	$ 5.55	$ 5.87	$ 6.22	5.87%
Piedmont Natural Gas	PNY	$ 1.49	$ 1.60	$ 1.71	$ 1.84	$ 1.97	$ 2.11	$ 2.25	$ 2.40	$ 2.56	$ 2.72	$ 2.88	$ 3.05	$ 3.23	$ 3.42	$ 3.62	$ 3.83	5.87%
South Jersey Industries	SJI	$ 2.27	$ 2.35	$ 2.58	$ 2.84	$ 3.12	$ 3.42	$ 3.74	$ 4.06	$ 4.38	$ 4.69	$ 5.00	$ 5.29	$ 5.60	$ 5.93	$ 6.28	$ 6.65	5.87%
Southwest Gas	SWX	$ 1.39	$ 1.90	$ 2.02	$ 2.15	$ 2.28	$ 2.43	$ 2.58	$ 2.74	$ 2.91	$ 3.08	$ 3.27	$ 3.46	$ 3.66	$ 3.88	$ 4.10	$ 4.34	5.87%
WGL Holdings Inc.	WGL	$ 2.44	$ 2.53	$ 2.64	$ 2.76	$ 2.89	$ 3.02	$ 3.16	$ 3.32	$ 3.49	$ 3.68	$ 3.88	$ 4.11	$ 4.35	$ 4.61	$ 4.88	$ 5.17	5.87%

Projected Annual Data
Dividend Payout Ratio

		[33]	[34]	[35]	[36]	[37]	[38]	[39]	[40]	[41]	[42]	[43]	[44]	[45]	[46]	[47]
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AGL Resources	AGL	63.00%	61.50%	60.00%	58.50%	57.00%	58.60%	60.20%	61.80%	63.40%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Laclede Group	LG	54.00%	54.25%	54.50%	54.75%	55.00%	57.00%	59.00%	61.00%	63.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Nicor Inc.	GAS	67.00%	65.25%	63.50%	61.75%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Northwest Nat. Gas	NWN	56.00%	57.25%	58.50%	59.75%	61.00%	61.80%	62.60%	63.40%	64.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Piedmont Natural Gas	PNY	67.00%	64.75%	62.50%	60.25%	58.00%	59.40%	60.80%	62.20%	63.60%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
South Jersey Industries	SJI	51.00%	51.00%	51.00%	51.00%	51.00%	53.80%	56.60%	59.40%	62.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Southwest Gas	SWX	51.00%	49.75%	48.50%	47.25%	46.00%	49.80%	53.60%	57.40%	61.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
WGL Holdings Inc.	WGL	58.00%	58.25%	58.50%	58.75%	59.00%	60.20%	61.40%	62.60%	63.80%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%

MULTI-STAGE DCF MODEL – 30-DAY AVERAGE PRICE

Projected Annual Data
Dividends per Share & Terminal Market Value

		[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	[64]
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023	Terminal P/E Ratio
AGL Resources	AGL	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 3.54	$ 81.79	15.02
Laclede Group	LG	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 3.60	$ 75.73	13.66
Nicor Inc.	GAS	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 3.40	$ 92.66	17.72
Northwest Nat. Gas	NWN	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 4.04	$ 101.06	16.25
Piedmont Natural Gas	PNY	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 2.49	$ 60.10	15.67
South Jersey Industries	SJI	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 4.32	$ 92.26	13.88
Southwest Gas	SWX	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 2.82	$ 67.71	15.58
WGL Holdings Inc.	WGL	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 3.36	$ 74.43	14.40
																	Terminal Price	15.27

Projected Annual Data
Investor Cash Flows

		[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]
Company	Ticker	Initial Outflow	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AGL Resources	AGL	($36.45)	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 85.33
Laclede Group	LG	($33.36)	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 79.34
Nicor Inc.	GAS	($41.95)	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 96.06
Northwest Nat. Gas	NWN	($44.76)	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 105.11
Piedmont Natural Gas	PNY	($26.42)	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 62.59
South Jersey Industries	SJI	($38.46)	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 96.58
Southwest Gas	SWX	($28.60)	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 70.54
WGL Holdings Inc.	WGL	($33.05)	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 77.79

MULTI-STAGE DCF MODEL – 90-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
		Stock	Dividend	2009	EPS	Sustainable	GDP		Payout Ratio		Solver Cells			Near Term	Intermediate	Long Term
Company	Ticker	Price	Yield	EPS	Growth	Growth	Growth	2009	2013	2023	Delta	k(e)	Solution	Growth	Growth	Growth
AGL Resources	AGL	$ 35.85	4.80%	$ 2.75	4.00%	5.09%	5.87%	63.00%	57.00%	65.00%	$ 0.00	10.53%	10.53%	4.00%	4.94%	5.95%
Laclede Group	LG	$ 32.49	4.86%	$ 2.92	3.33%	6.56%	5.87%	54.00%	55.00%	65.00%	$ 0.00	11.04%	11.04%	3.33%	4.60%	5.95%
Nicor Inc.	GAS	$ 39.67	4.69%	$ 2.75	3.35%	4.32%	5.87%	67.00%	60.00%	65.00%	$ 0.00	9.98%	9.98%	3.35%	4.61%	5.95%
Northwest Nat. Gas	NWN	$ 43.58	3.81%	$ 2.85	5.57%	5.29%	5.87%	56.00%	61.00%	65.00%	$ 0.00	10.22%	10.22%	5.57%	5.72%	5.95%
Piedmont Natural Gas	PNY	$ 24.70	4.37%	$ 1.60	7.10%	4.61%	5.87%	67.00%	58.00%	65.00%	$ 0.00	10.56%	10.56%	7.10%	6.49%	5.95%
South Jersey Industries	SJI	$ 36.82	3.58%	$ 2.35	9.86%	7.73%	5.87%	51.00%	51.00%	65.00%	$ 0.00	11.04%	11.04%	9.86%	7.86%	5.95%
Southwest Gas	SWX	$ 27.06	3.51%	$ 1.90	6.33%	4.01%	5.87%	51.00%	46.00%	65.00%	$ 0.00	10.53%	10.53%	6.33%	6.10%	5.95%
WGL Holdings Inc.	WGL	$ 33.02	4.45%	$ 2.53	4.50%	4.39%	5.87%	58.00%	59.00%	65.00%	$ 0.00	10.65%	10.65%	4.50%	5.19%	5.95%
MEAN:		$ 34.15	4.26%	$ 2.46	5.51%	5.25%	5.87%	58.38%	55.88%	65.00%			10.57%	5.51%	5.69%	5.95%
												Flotation Adjustment	0.11%			
												Adjusted ROE	10.68%			

Projected Annual Data
Earnings per Share

Company	Ticker	[16] 2008	[17] **2009**	[18] 2010	[19] 2011	[20] 2012	[21] **2013**	[22] 2014	[23] 2015	[24] 2016	[25] 2017	[26] **2018**	[27] 2019	[28] 2020	[29] 2021	[30] 2022	[31] **2023**	[32] Terminal Growth
AGL Resources	AGL	$ 2.71	$ 2.75	$ 2.86	$ 2.97	$ 3.09	$ 3.22	$ 3.36	$ 3.51	$ 3.68	$ 3.88	$ 4.09	$ 4.33	$ 4.59	$ 4.86	$ 5.14	$ 5.44	5.87%
Laclede Group	LG	$ 2.64	$ 2.92	$ 3.02	$ 3.12	$ 3.22	$ 3.33	$ 3.45	$ 3.60	$ 3.76	$ 3.95	$ 4.17	$ 4.41	$ 4.67	$ 4.95	$ 5.24	$ 5.55	5.87%
Nicor Inc.	GAS	$ 2.63	$ 2.75	$ 2.84	$ 2.94	$ 3.04	$ 3.14	$ 3.26	$ 3.39	$ 3.55	$ 3.73	$ 3.93	$ 4.16	$ 4.41	$ 4.66	$ 4.94	$ 5.23	5.87%
Northwest Nat. Gas	NWN	$ 2.57	$ 2.85	$ 3.01	$ 3.18	$ 3.35	$ 3.54	$ 3.74	$ 3.95	$ 4.18	$ 4.42	$ 4.67	$ 4.95	$ 5.24	$ 5.55	$ 5.87	$ 6.22	5.87%
Piedmont Natural Gas	PNY	$ 1.49	$ 1.60	$ 1.71	$ 1.84	$ 1.97	$ 2.11	$ 2.25	$ 2.40	$ 2.56	$ 2.72	$ 2.88	$ 3.05	$ 3.23	$ 3.42	$ 3.62	$ 3.83	5.87%
South Jersey Industries	SJI	$ 2.27	$ 2.35	$ 2.58	$ 2.84	$ 3.12	$ 3.42	$ 3.74	$ 4.06	$ 4.38	$ 4.69	$ 5.00	$ 5.29	$ 5.60	$ 5.93	$ 6.28	$ 6.65	5.87%
Southwest Gas	SWX	$ 1.39	$ 1.90	$ 2.02	$ 2.15	$ 2.28	$ 2.43	$ 2.58	$ 2.74	$ 2.91	$ 3.08	$ 3.27	$ 3.46	$ 3.66	$ 3.88	$ 4.10	$ 4.34	5.87%
WGL Holdings Inc.	WGL	$ 2.44	$ 2.53	$ 2.64	$ 2.76	$ 2.89	$ 3.02	$ 3.16	$ 3.32	$ 3.49	$ 3.68	$ 3.88	$ 4.11	$ 4.35	$ 4.61	$ 4.88	$ 5.17	5.87%

Projected Annual Data
Dividend Payout Ratio

Company	Ticker	[33] 2009	[34] 2010	[35] 2011	[36] 2012	[37] 2013	[38] 2014	[39] 2015	[40] 2016	[41] 2017	[42] 2018	[43] 2019	[44] 2020	[45] 2021	[46] 2022	[47] 2023
AGL Resources	AGL	63.00%	61.50%	60.00%	58.50%	57.00%	58.60%	60.20%	61.80%	63.40%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Laclede Group	LG	54.00%	54.25%	54.50%	54.75%	55.00%	57.00%	59.00%	61.00%	63.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Nicor Inc.	GAS	67.00%	65.25%	63.50%	61.75%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Northwest Nat. Gas	NWN	56.00%	57.25%	58.50%	59.75%	61.00%	61.80%	62.60%	63.40%	64.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Piedmont Natural Gas	PNY	67.00%	64.75%	62.50%	60.25%	58.00%	59.40%	60.80%	62.20%	63.60%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
South Jersey Industries	SJI	51.00%	51.00%	51.00%	51.00%	51.00%	53.80%	56.60%	59.40%	62.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Southwest Gas	SWX	51.00%	49.75%	48.50%	47.25%	46.00%	49.80%	53.60%	57.40%	61.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
WGL Holdings Inc.	WGL	58.00%	58.25%	58.50%	58.75%	59.00%	60.20%	61.40%	62.60%	63.80%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%

MULTI-STAGE DCF MODEL – 90-DAY AVERAGE PRICE

Projected Annual Data
Dividends per Share & Terminal Market Value

		[48]	[49]	[50]	[51]	[52]	[53]	[54]	[55]	[56]	[57]	[58]	[59]	[60]	[61]	[62]	[63]	[64]
Company	Ticker	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023	Terminal P/E Ratio
AGL Resources	AGL	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 3.54	$ 80.46	14.78
Laclede Group	LG	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 3.60	$ 73.80	13.31
Nicor Inc.	GAS	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 3.40	$ 87.59	16.75
Northwest Nat. Gas	NWN	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 4.04	$ 98.42	15.83
Piedmont Natural Gas	PNY	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 2.49	$ 56.27	14.68
South Jersey Industries	SJI	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 4.32	$ 88.59	13.33
Southwest Gas	SWX	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 2.82	$ 64.26	14.79
WGL Holdings Inc.	WGL	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 3.36	$ 74.37	14.39
																	Terminal Price	14.73

Projected Annual Data
Investor Cash Flows

		[65]	[66]	[67]	[68]	[69]	[70]	[71]	[72]	[73]	[74]	[75]	[76]	[77]	[78]	[79]	[80]
Company	Ticker	Initial Outflow	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
AGL Resources	AGL	($35.85)	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 84.00
Laclede Group	LG	($32.49)	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 77.40
Nicor Inc.	GAS	($39.67)	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 90.99
Northwest Nat. Gas	NWN	($43.58)	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 102.46
Piedmont Natural Gas	PNY	($24.70)	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 58.77
South Jersey Industries	SJI	($36.82)	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 92.91
Southwest Gas	SWX	($27.06)	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 67.09
WGL Holdings Inc.	WGL	($33.02)	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 77.73

MULTI-STAGE DCF MODEL – 180-DAY AVERAGE PRICE

Inputs		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
		Stock	Dividend	2009	EPS	Sustainable	GDP		Payout Ratio		Solver Cells			Near Term	Intermediate	Long Term
Company	Ticker	Price	Yield	EPS	Growth	Growth	Growth	2009	2013	2023	Delta	k(e)	Solution	Growth	Growth	Growth
AGL Resources	AGL	$ 34.11	5.04%	$ 2.75	4.00%	5.09%	5.87%	63.00%	57.00%	65.00%	$ 0.00	10.77%	10.77%	4.00%	4.94%	5.95%
Laclede Group	LG	$ 32.63	4.84%	$ 2.92	3.33%	6.56%	5.87%	54.00%	55.00%	65.00%	$ 0.00	11.02%	11.02%	3.33%	4.60%	5.95%
Nicor Inc.	GAS	$ 37.32	4.98%	$ 2.75	3.35%	4.32%	5.87%	67.00%	60.00%	65.00%	$ 0.00	10.24%	10.24%	3.35%	4.61%	5.95%
Northwest Nat. Gas	NWN	$ 43.43	3.82%	$ 2.85	5.57%	5.29%	5.87%	56.00%	61.00%	65.00%	$ 0.00	10.23%	10.23%	5.57%	5.72%	5.95%
Piedmont Natural Gas	PNY	$ 24.34	4.44%	$ 1.60	7.10%	4.61%	5.87%	67.00%	58.00%	65.00%	$ 0.00	10.63%	10.63%	7.10%	6.49%	5.95%
South Jersey Industries	SJI	$ 35.85	3.68%	$ 2.35	9.86%	7.73%	5.87%	51.00%	51.00%	65.00%	$ 0.00	11.17%	11.17%	9.86%	7.86%	5.95%
Southwest Gas	SWX	$ 25.05	3.79%	$ 1.90	6.33%	4.01%	5.87%	51.00%	46.00%	65.00%	$ 0.00	10.88%	10.88%	6.33%	6.10%	5.95%
WGL Holdings Inc.	WGL	$ 32.58	4.51%	$ 2.53	4.50%	4.39%	5.87%	58.00%	59.00%	65.00%	$ 0.00	10.72%	10.72%	4.50%	5.19%	5.95%
MEAN:		$ 33.16	4.39%	$ 2.46	5.51%	5.25%	5.87%	58.38%	55.88%	65.00%			10.71%	5.51%	5.69%	5.95%
												Flotation Adjustment	0.11%			
												Adjusted ROE	10.82%			

Projected Annual Data
Earnings per Share

Company	Ticker	[16] 2008	[17] **2009**	[18] 2010	[19] 2011	[20] 2012	[21] **2013**	[22] 2014	[23] 2015	[24] 2016	[25] 2017	[26] **2018**	[27] 2019	[28] 2020	[29] 2021	[30] 2022	[31] **2023**	[32] Terminal Growth
AGL Resources	AGL	$ 2.71	$ 2.75	$ 2.86	$ 2.97	$ 3.09	$ 3.22	$ 3.36	$ 3.51	$ 3.68	$ 3.88	$ 4.09	$ 4.33	$ 4.59	$ 4.86	$ 5.14	$ 5.44	5.87%
Laclede Group	LG	$ 2.64	$ 2.92	$ 3.02	$ 3.12	$ 3.22	$ 3.33	$ 3.45	$ 3.60	$ 3.76	$ 3.95	$ 4.17	$ 4.41	$ 4.67	$ 4.95	$ 5.24	$ 5.55	5.87%
Nicor Inc.	GAS	$ 2.63	$ 2.75	$ 2.84	$ 2.94	$ 3.04	$ 3.14	$ 3.26	$ 3.39	$ 3.55	$ 3.73	$ 3.93	$ 4.16	$ 4.41	$ 4.66	$ 4.94	$ 5.23	5.87%
Northwest Nat. Gas	NWN	$ 2.57	$ 2.85	$ 3.01	$ 3.18	$ 3.35	$ 3.54	$ 3.74	$ 3.95	$ 4.18	$ 4.42	$ 4.67	$ 4.95	$ 5.24	$ 5.55	$ 5.87	$ 6.22	5.87%
Piedmont Natural Gas	PNY	$ 1.49	$ 1.60	$ 1.71	$ 1.84	$ 1.97	$ 2.11	$ 2.25	$ 2.40	$ 2.56	$ 2.72	$ 2.88	$ 3.05	$ 3.23	$ 3.42	$ 3.62	$ 3.83	5.87%
South Jersey Industries	SJI	$ 2.27	$ 2.35	$ 2.58	$ 2.84	$ 3.12	$ 3.42	$ 3.74	$ 4.06	$ 4.38	$ 4.69	$ 5.00	$ 5.29	$ 5.60	$ 5.93	$ 6.28	$ 6.65	5.87%
Southwest Gas	SWX	$ 1.39	$ 1.90	$ 2.02	$ 2.15	$ 2.28	$ 2.43	$ 2.58	$ 2.74	$ 2.91	$ 3.08	$ 3.27	$ 3.46	$ 3.66	$ 3.88	$ 4.10	$ 4.34	5.87%
WGL Holdings Inc.	WGL	$ 2.44	$ 2.53	$ 2.64	$ 2.76	$ 2.89	$ 3.02	$ 3.16	$ 3.32	$ 3.49	$ 3.68	$ 3.88	$ 4.11	$ 4.35	$ 4.61	$ 4.88	$ 5.17	5.87%

Projected Annual Data
Dividend Payout Ratio

Company	Ticker	[33] 2009	[34] 2010	[35] 2011	[36] 2012	[37] 2013	[38] 2014	[39] 2015	[40] 2016	[41] 2017	[42] 2018	[43] 2019	[44] 2020	[45] 2021	[46] 2022	[47] 2023
AGL Resources	AGL	63.00%	61.50%	60.00%	58.50%	57.00%	58.60%	60.20%	61.80%	63.40%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Laclede Group	LG	54.00%	54.25%	54.50%	54.75%	55.00%	57.00%	59.00%	61.00%	63.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Nicor Inc.	GAS	67.00%	65.25%	63.50%	61.75%	60.00%	61.00%	62.00%	63.00%	64.00%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Northwest Nat. Gas	NWN	56.00%	57.25%	58.50%	59.75%	61.00%	61.80%	62.60%	63.40%	64.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Piedmont Natural Gas	PNY	67.00%	64.75%	62.50%	60.25%	58.00%	59.40%	60.80%	62.20%	63.60%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
South Jersey Industries	SJI	51.00%	51.00%	51.00%	51.00%	51.00%	53.80%	56.60%	59.40%	62.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
Southwest Gas	SWX	51.00%	49.75%	48.50%	47.25%	46.00%	49.80%	53.60%	57.40%	61.20%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%
WGL Holdings Inc.	WGL	58.00%	58.25%	58.50%	58.75%	59.00%	60.20%	61.40%	62.60%	63.80%	65.00%	65.00%	65.00%	65.00%	65.00%	65.00%

MULTI-STAGE DCF MODEL – 180-DAY AVERAGE PRICE

Projected Annual Data
Dividends per Share & Terminal Market Value

Company	Ticker	[48] 2009	[49] 2010	[50] 2011	[51] 2012	[52] 2013	[53] 2014	[54] 2015	[55] 2016	[56] 2017	[57] 2018	[58] 2019	[59] 2020	[60] 2021	[61] 2022	[62] 2023	[63] 2023	[64] Terminal P/E Ratio
AGL Resources	AGL	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 3.54	$ 76.56	14.06
Laclede Group	LG	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 3.60	$ 74.11	13.36
Nicor Inc.	GAS	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 3.40	$ 82.38	15.76
Northwest Nat. Gas	NWN	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 4.04	$ 98.09	15.78
Piedmont Natural Gas	PNY	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 2.49	$ 55.46	14.47
South Jersey Industries	SJI	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 4.32	$ 86.41	13.00
Southwest Gas	SWX	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 2.82	$ 59.75	13.75
WGL Holdings Inc.	WGL	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 3.36	$ 73.39	14.20
																	Terminal Price	14.30

Projected Annual Data
Investor Cash Flows

Company	Ticker	[65] Initial Outflow	[66] 2009	[67] 2010	[68] 2011	[69] 2012	[70] 2013	[71] 2014	[72] 2015	[73] 2016	[74] 2017	[75] 2018	[76] 2019	[77] 2020	[78] 2021	[79] 2022	[80] 2023
AGL Resources	AGL	($34.11)	$ 1.73	$ 1.76	$ 1.78	$ 1.81	$ 1.83	$ 1.97	$ 2.11	$ 2.28	$ 2.46	$ 2.66	$ 2.82	$ 2.98	$ 3.16	$ 3.34	$ 80.10
Laclede Group	LG	($32.63)	$ 1.58	$ 1.64	$ 1.70	$ 1.76	$ 1.83	$ 1.97	$ 2.12	$ 2.30	$ 2.49	$ 2.71	$ 2.87	$ 3.04	$ 3.22	$ 3.40	$ 77.72
Nicor Inc.	GAS	($37.32)	$ 1.84	$ 1.85	$ 1.87	$ 1.87	$ 1.88	$ 1.99	$ 2.10	$ 2.24	$ 2.39	$ 2.55	$ 2.70	$ 2.86	$ 3.03	$ 3.21	$ 85.77
Northwest Nat. Gas	NWN	($43.43)	$ 1.60	$ 1.72	$ 1.86	$ 2.00	$ 2.16	$ 2.31	$ 2.47	$ 2.65	$ 2.84	$ 3.04	$ 3.22	$ 3.41	$ 3.61	$ 3.82	$ 102.13
Piedmont Natural Gas	PNY	($24.34)	$ 1.07	$ 1.11	$ 1.15	$ 1.18	$ 1.22	$ 1.34	$ 1.46	$ 1.59	$ 1.73	$ 1.87	$ 1.98	$ 2.10	$ 2.22	$ 2.35	$ 57.96
South Jersey Industries	SJI	($35.85)	$ 1.20	$ 1.32	$ 1.45	$ 1.59	$ 1.75	$ 2.01	$ 2.30	$ 2.60	$ 2.92	$ 3.25	$ 3.44	$ 3.64	$ 3.85	$ 4.08	$ 90.73
Southwest Gas	SWX	($25.05)	$ 0.97	$ 1.01	$ 1.04	$ 1.08	$ 1.12	$ 1.29	$ 1.47	$ 1.67	$ 1.89	$ 2.12	$ 2.25	$ 2.38	$ 2.52	$ 2.67	$ 62.57
WGL Holdings Inc.	WGL	($32.58)	$ 1.47	$ 1.54	$ 1.62	$ 1.70	$ 1.78	$ 1.90	$ 2.04	$ 2.18	$ 2.35	$ 2.53	$ 2.67	$ 2.83	$ 3.00	$ 3.17	$ 76.75

MULTI-STAGE DCF MODEL − NOTES

Notes:

[1] Source: Attachment RBH-2
[2] Source: Bloomberg; equals most recent annualized dividend divided by 180-day average stock price
[3] Source: Value Line
[4] Source: Value Line & Zacks; equals average earnings growth estimate
[5] Source: Value Line; (B x R) + (S x V)
[6] Sources: Ibbotson, Bureau of Economic Analysis, EIA Annual Energy Outlook
[7] Source: Value Line
[8] Source: Value Line
[9] Source: Value Line; natural gas utility industry composite statistics
[10] Equals Column [1] + Column [64]
[11] Equals result of Excel Solver function; goal - Column [10] equals $0.00
[12] Equals Column [11]
[13] Equals ((Column [21] / Column [17]) ^ (1 / (2013 − 2009))) − 1
[14] Equals ((Column [26] / Column [21]) ^ (1 / (2018 − 2013))) − 1
[15] Equals Column [6]
[16] Source: Value Line
[17] Source: Value Line
[18] Equals Column [17] x (1 + Column [4])
[19] Equals Column [18] x (1 + Column [4])
[20] Equals Column [19] x (1 + Column [4])
[21] Equals Column [20] x (1 + Column [4])
[22] Equals (1 + (Column [4] + (((Column [6] − Column [4]) / (2018 − 2013 + 1)) x (2014 − 2013)))) x Column [21]
[23] Equals (1 + (Column [4] + (((Column [6] − Column [4]) / (2018 − 2013 + 1)) x (2015 − 2013)))) x Column [22]
[24] Equals (1 + (Column [4] + (((Column [6] − Column [4]) / (2018 − 2013 + 1)) x (2016 − 2013)))) x Column [23]
[25] Equals (1 + (Column [4] + (((Column [6] − Column [4]) / (2018 − 2013 + 1)) x (2017 − 2013)))) x Column [24]
[26] Equals (1 + (Column [4] + (((Column [6] − Column [4]) / (2018 − 2013 + 1)) x (2018 − 2013)))) x Column [25]
[27] Equals Column [26] x (1 + Column [6])
[28] Equals Column [27] x (1 + Column [6])
[29] Equals Column [28] x (1 + Column [6])
[30] Equals Column [29] x (1 + Column [6])
[31] Equals Column [30] x (1 + Column [6])
[32] Equals (Column [31] / Column [30]) − 1
[33] Equals Column [7]
[34] Equals Column [33] + ((Column [37] − Column [33]) / 4)
[35] Equals Column [34] + ((Column [37] − Column [33]) / 4)
[36] Equals Column [35] + ((Column [37] − Column [33]) / 4)
[37] Equals Column [8]
[38] Equals Column [37] + ((Column [42] − Column [37]) / 5)
[39] Equals Column [38] + ((Column [42] − Column [37]) / 5)
[40] Equals Column [39] + ((Column [42] − Column [37]) / 5)
[41] Equals Column [40] + ((Column [42] − Column [37]) / 5)
[42] Equals Column [41] + ((Column [42] − Column [37]) / 5)
[43] Equals Column [42]
[44] Equals Column [43]
[45] Equals Column [44]
[46] Equals Column [45]
[47] Equals Column [46]
[48] Equals Column [17] x Column [33]
[49] Equals Column [18] x Column [34]
[50] Equals Column [19] x Column [35]
[51] Equals Column [20] x Column [36]
[52] Equals Column [21] x Column [37]
[53] Equals Column [22] x Column [38]
[54] Equals Column [23] x Column [39]
[55] Equals Column [24] x Column [40]
[56] Equals Column [25] x Column [41]
[57] Equals Column [26] x Column [42]
[58] Equals Column [27] x Column [43]
[59] Equals Column [28] x Column [44]
[60] Equals Column [29] x Column [45]
[61] Equals Column [30] x Column [46]
[62] Equals Column [31] x Column [47]
[63] Equals (Column [62] x (1 + Column [6])) / (Column [12] − Column [6])
[64] Equals Column [63] / Column [31]
[65] Equals negative net present value; discount rate equals Column [11], cash flows equal Column [67] through Column [80]
[66] Equals Column [48]
[67] Equals Column [49]
[68] Equals Column [50]
[69] Equals Column [51]
[70] Equals Column [52]
[71] Equals Column [53]
[72] Equals Column [54]
[73] Equals Column [55]
[74] Equals Column [56]
[75] Equals Column [57]
[76] Equals Column [58]
[77] Equals Column [59]
[78] Equals Column [60]
[79] Equals Column [61]
[80] Equals Column [62] + Column [63]

BETA ANALYSIS

Date	AGL Price	AGL Weekly Return	AGL Covar.	LG Price	LG Weekly Return	LG Covar.	GAS Price	GAS Weekly Return	GAS Covar.	NWN Price	NWN Weekly Return	NWN Covar.
1/29/2010	35.29	-0.82%	0.084%	32.26	0.40%	0.054%	40.52	1.00%	0.092%	43.37	-1.09%	0.060%
1/22/2010	35.58	-2.28%	0.084%	32.13	-2.16%	0.052%	40.12	-3.51%	0.092%	43.85	-0.39%	0.059%
1/15/2010	36.41	1.22%	0.082%	32.84	-0.51%	0.053%	41.58	0.12%	0.089%	44.02	-1.70%	0.060%
1/8/2010	35.97	-1.37%	0.083%	33.01	-2.25%	0.053%	41.53	-1.35%	0.089%	44.78	-0.58%	0.056%
1/1/2010	36.47	-2.69%	0.085%	33.77	-1.57%	0.058%	42.10	-2.30%	0.094%	45.04	-1.66%	0.061%
12/25/2009	37.48	2.15%	0.092%	34.31	0.76%	0.064%	43.09	1.03%	0.096%	45.80	2.23%	0.060%
12/18/2009	36.69	-0.03%	0.091%	34.05	0.53%	0.063%	42.65	0.40%	0.098%	44.80	-0.09%	0.060%
12/11/2009	36.70	2.54%	0.091%	33.87	3.36%	0.062%	42.48	5.10%	0.098%	44.84	2.49%	0.060%
12/4/2009	35.79	3.44%	0.091%	32.77	4.03%	0.063%	40.42	3.35%	0.098%	43.75	2.24%	0.061%
11/27/2009	34.60	2.40%	0.094%	31.50	0.32%	0.064%	39.11	1.40%	0.103%	42.79	-0.07%	0.065%
11/20/2009	33.79	-1.77%	0.107%	31.40	0.61%	0.066%	38.57	-1.00%	0.117%	42.82	-0.09%	0.066%
11/13/2009	34.40	-2.44%	0.110%	31.21	-0.29%	0.055%	38.96	1.62%	0.120%	42.86	-0.53%	0.056%
11/6/2009	35.26	0.86%	0.113%	31.30	1.92%	0.053%	38.34	3.40%	0.129%	43.09	3.06%	0.060%
10/30/2009	34.96	-4.17%	0.117%	30.71	-3.00%	0.055%	37.08	-0.48%	0.134%	41.81	-2.81%	0.061%
10/23/2009	36.48	-1.03%	0.133%	31.66	-1.83%	0.074%	37.26	-2.79%	0.145%	43.02	-0.85%	0.078%
10/16/2009	36.86	2.11%	0.132%	32.25	-0.06%	0.063%	38.33	2.71%	0.140%	43.39	2.26%	0.070%
10/9/2009	36.10	3.62%	0.135%	32.27	1.16%	0.073%	37.32	5.30%	0.148%	42.43	3.64%	0.070%
10/2/2009	34.84	0.23%	0.191%	31.90	-1.09%	0.138%	35.44	-4.01%	0.200%	40.94	-2.31%	0.117%
9/25/2009	34.76	-1.00%	0.197%	32.25	-2.89%	0.136%	36.92	-0.51%	0.207%	41.91	-1.57%	0.119%
9/18/2009	35.11	2.39%	0.199%	33.21	2.75%	0.135%	37.11	3.57%	0.208%	42.58	2.90%	0.120%
9/11/2009	34.29	2.48%	0.198%	32.32	-1.73%	0.134%	35.83	0.00%	0.206%	41.38	-1.10%	0.119%
9/4/2009	33.46	-2.22%	0.198%	32.89	-1.11%	0.136%	35.83	-2.74%	0.207%	41.84	-2.40%	0.121%
8/28/2009	34.22	-2.06%	0.199%	33.26	-4.37%	0.138%	36.84	-2.33%	0.207%	42.87	-2.06%	0.122%
8/21/2009	34.94	1.72%	0.199%	34.78	4.66%	0.138%	37.72	3.20%	0.207%	43.77	1.67%	0.122%
8/14/2009	34.35	0.82%	0.199%	33.23	3.49%	0.136%	36.55	0.69%	0.206%	43.05	0.82%	0.121%
8/7/2009	34.07	1.34%	0.198%	32.11	-4.35%	0.136%	36.30	-0.38%	0.206%	42.70	-4.35%	0.121%
7/31/2009	33.62	-1.49%	0.197%	33.57	-3.00%	0.141%	36.44	-1.01%	0.211%	44.64	-1.48%	0.124%
7/24/2009	34.13	6.42%	0.197%	34.61	5.94%	0.142%	36.81	6.57%	0.211%	45.31	4.59%	0.124%
7/17/2009	32.07	3.89%	0.192%	32.67	3.58%	0.137%	34.54	3.41%	0.205%	43.32	0.88%	0.120%
7/10/2009	30.87	-2.34%	0.186%	31.54	-3.10%	0.130%	33.40	-1.97%	0.198%	42.94	-1.36%	0.116%
7/3/2009	31.61	0.19%	0.184%	32.55	-2.13%	0.129%	34.07	-1.76%	0.199%	43.53	-0.98%	0.115%
6/26/2009	31.55	-0.13%	0.185%	33.26	-0.66%	0.128%	34.68	-0.32%	0.198%	43.96	-1.90%	0.115%
6/19/2009	31.59	0.89%	0.185%	33.48	-2.48%	0.128%	34.79	-1.22%	0.198%	44.81	-1.21%	0.117%
6/12/2009	31.31	2.42%	0.186%	34.33	2.39%	0.126%	35.22	3.41%	0.198%	45.36	0.04%	0.115%
6/5/2009	30.57	5.71%	0.185%	33.53	7.88%	0.125%	34.06	8.30%	0.198%	45.34	6.83%	0.115%
5/29/2009	28.92	1.62%	0.181%	31.08	4.30%	0.121%	31.45	1.78%	0.192%	42.44	6.37%	0.111%
5/22/2009	28.46	-1.93%	0.180%	29.80	-5.00%	0.117%	30.90	-3.47%	0.192%	39.90	-3.39%	0.106%
5/15/2009	29.02	-5.23%	0.181%	31.37	-6.13%	0.117%	32.01	-5.27%	0.192%	41.30	-3.77%	0.106%
5/8/2009	30.62	-2.52%	0.177%	33.42	-6.20%	0.112%	33.79	3.02%	0.189%	42.92	2.98%	0.104%
5/1/2009	31.41	9.98%	0.180%	35.63	3.76%	0.119%	32.80	4.46%	0.184%	41.68	2.81%	0.101%
4/24/2009	28.56	5.31%	0.175%	34.34	-4.88%	0.119%	31.40	-4.09%	0.186%	40.54	-3.01%	0.101%
4/17/2009	27.12	1.57%	0.175%	36.10	-3.53%	0.119%	32.74	-0.24%	0.186%	41.80	-1.90%	0.100%
4/10/2009	26.70	-2.38%	0.179%	37.42	-4.10%	0.123%	32.82	-2.03%	0.191%	42.61	-1.34%	0.106%
4/3/2009	27.35	1.71%	0.180%	39.02	2.58%	0.124%	33.50	0.69%	0.192%	43.19	-0.32%	0.106%
3/27/2009	26.89	-0.85%	0.179%	38.04	0.24%	0.123%	33.27	1.31%	0.194%	43.33	-0.53%	0.108%
3/20/2009	27.12	5.85%	0.180%	37.95	2.96%	0.123%	32.84	11.47%	0.193%	43.56	9.01%	0.109%
3/13/2009	25.62	3.72%	0.176%	36.86	-1.07%	0.123%	29.46	4.32%	0.188%	39.96	2.17%	0.106%
3/6/2009	24.70	-10.96%	0.167%	37.26	-5.86%	0.126%	28.24	-10.01%	0.178%	39.11	-4.49%	0.101%
2/27/2009	27.74	-2.60%	0.154%	39.58	-6.39%	0.119%	31.38	5.87%	0.167%	40.95	-2.20%	0.096%
2/20/2009	28.48	-9.44%	0.153%	42.28	-6.67%	0.115%	29.64	-13.28%	0.172%	41.87	-4.56%	0.095%
2/13/2009	31.45	-6.12%	0.142%	45.30	-1.39%	0.106%	34.18	-5.42%	0.156%	43.87	-3.09%	0.089%
2/6/2009	33.50	8.66%	0.137%	45.94	1.21%	0.105%	36.14	5.64%	0.151%	45.27	5.43%	0.086%
1/30/2009	30.83	0.33%	0.130%	45.39	8.93%	0.107%	34.21	2.79%	0.149%	42.94	2.34%	0.079%
1/23/2009	30.73	-1.88%	0.135%	41.67	-5.17%	0.109%	33.28	-0.95%	0.158%	41.96	-2.98%	0.077%
1/16/2009	31.32	-0.03%	0.134%	43.94	-0.95%	0.108%	33.60	0.24%	0.157%	43.25	4.34%	0.076%
1/9/2009	31.33	-0.92%	0.138%	44.36	-5.23%	0.112%	33.52	-4.39%	0.163%	41.45	-4.91%	0.082%
1/2/2009	31.62	6.79%	0.138%	46.81	4.65%	0.108%	35.06	2.82%	0.160%	43.59	-0.21%	0.079%
12/26/2008	29.61	0.17%		44.73	2.12%		34.10	-2.99%		43.68	-2.28%	
12/19/2008	29.56	-0.67%		43.80	-7.40%		35.15	0.09%		44.70	-0.11%	
12/12/2008	29.76	4.79%		47.30	-5.08%		35.12	-4.12%		44.75	-1.97%	
12/5/2008	28.40	-5.68%		49.83	-5.41%		36.63	-10.18%		45.65	-8.61%	
11/28/2008	30.11	6.32%		52.68	-0.15%		40.78	6.14%		49.95	0.28%	
11/21/2008	28.32	-1.15%		52.76	5.80%		38.42	-2.21%		49.81	5.69%	
11/14/2008	28.65	-1.48%		49.87	0.50%		39.29	-7.40%		47.13	-3.52%	
11/7/2008	29.08	-4.34%		49.62	-5.16%		42.43	-8.18%		48.85	-3.99%	
10/31/2008	30.40	10.79%		52.32	9.66%		46.21	5.60%		50.88	9.49%	
10/24/2008	27.44	0.70%		47.71	6.88%		43.76	2.80%		46.47	5.49%	
10/17/2008	27.25	3.73%		44.64	12.16%		42.57	9.91%		44.05	0.43%	
10/10/2008	26.27	-16.07%		39.80	-19.24%		38.73	-16.26%		43.86	-14.47%	
10/3/2008	31.30	-3.10%		49.28	0.49%		46.25	-4.62%		51.28	-1.37%	
9/26/2008	32.30	-4.38%		49.04	-0.37%		48.49	-2.49%		51.99	-3.54%	
9/19/2008	33.78	2.09%		49.22	8.10%		49.73	3.39%		53.90	7.71%	
9/12/2008	33.09	3.60%		45.53	5.56%		48.10	6.20%		50.04	5.26%	
9/5/2008	31.94	-3.39%		43.13	-4.01%		45.29	-1.31%		47.54	-2.44%	
8/29/2008	33.06	0.73%		44.93	-3.25%		45.89	2.20%		48.73	1.31%	
8/22/2008	32.82	1.20%		46.44	1.66%		44.90	2.02%		48.10	0.54%	
8/15/2008	32.43	-2.14%		45.68	3.16%		44.01	4.49%		47.84	6.15%	
8/8/2008	33.14	-1.07%		44.28	4.53%		42.12	6.90%		45.07	-0.07%	
8/1/2008	33.50	-0.09%		42.36	3.42%		39.40	1.86%		45.10	-3.01%	

BETA ANALYSIS

Date	Price	PNY Weekly Return	Covar.	Price	SJI Weekly Return	Covar.	Price	SWX Weekly Return	Covar.
1/29/2010	25.67	-1.31%	0.061%	38.33	0.42%	0.041%	27.67	-0.93%	0.109%
1/22/2010	26.01	-1.33%	0.059%	38.17	-1.01%	0.041%	27.93	-1.52%	0.107%
1/15/2010	26.36	0.73%	0.062%	38.56	1.96%	0.040%	28.36	-0.46%	0.107%
1/8/2010	26.17	-2.17%	0.064%	37.82	-0.94%	0.042%	28.49	-0.14%	0.105%
1/1/2010	26.75	-1.98%	0.075%	38.18	-1.47%	0.049%	28.53	-1.55%	0.108%
12/25/2009	27.29	4.60%	0.075%	38.75	1.87%	0.057%	28.98	0.76%	0.110%
12/18/2009	26.09	3.24%	0.073%	38.04	1.04%	0.056%	28.76	-0.31%	0.110%
12/11/2009	25.27	3.31%	0.073%	37.65	1.89%	0.056%	28.85	3.93%	0.110%
12/4/2009	24.46	3.56%	0.073%	36.95	3.21%	0.056%	27.76	5.07%	0.110%
11/27/2009	23.62	2.65%	0.075%	35.80	0.22%	0.059%	26.42	-0.97%	0.111%
11/20/2009	23.01	0.66%	0.086%	35.72	3.03%	0.069%	26.68	1.41%	0.131%
11/13/2009	22.86	-0.35%	0.083%	34.67	-2.01%	0.060%	26.31	0.69%	0.136%
11/6/2009	22.94	-1.46%	0.083%	35.38	0.26%	0.056%	26.13	4.56%	0.143%
10/30/2009	23.28	-1.85%	0.085%	35.29	-1.78%	0.055%	24.99	-0.79%	0.142%
10/23/2009	23.72	-1.94%	0.101%	35.93	-2.66%	0.068%	25.19	-0.67%	0.156%
10/16/2009	24.19	1.94%	0.100%	36.91	1.91%	0.065%	25.36	-2.69%	0.159%
10/9/2009	23.73	1.50%	0.107%	36.22	2.75%	0.066%	26.06	2.96%	0.162%
10/2/2009	23.38	-1.93%	0.159%	35.25	0.95%	0.117%	25.31	-1.52%	0.231%
9/25/2009	23.84	-2.49%	0.155%	34.92	-0.51%	0.123%	25.70	-2.36%	0.241%
9/18/2009	24.45	5.34%	0.156%	35.10	3.94%	0.125%	26.32	8.36%	0.241%
9/11/2009	23.21	-3.37%	0.154%	33.77	0.06%	0.124%	24.29	0.25%	0.237%
9/4/2009	24.02	-3.34%	0.157%	33.75	-5.78%	0.124%	24.23	-2.22%	0.238%
8/28/2009	24.85	-2.93%	0.158%	35.82	0.53%	0.125%	24.78	-1.82%	0.240%
8/21/2009	25.60	4.92%	0.158%	35.63	1.22%	0.125%	25.24	1.04%	0.240%
8/14/2009	24.40	0.78%	0.156%	35.20	-1.79%	0.124%	24.98	1.01%	0.240%
8/7/2009	24.21	-1.67%	0.156%	35.84	-2.82%	0.124%	24.73	2.11%	0.240%
7/31/2009	24.62	-1.48%	0.159%	36.88	-0.11%	0.123%	24.22	1.55%	0.239%
7/24/2009	24.99	5.89%	0.159%	36.92	4.23%	0.123%	23.85	4.61%	0.238%
7/17/2009	23.60	3.10%	0.154%	35.42	3.45%	0.119%	22.80	5.02%	0.234%
7/10/2009	22.89	-4.31%	0.147%	34.24	-3.82%	0.112%	21.71	-1.63%	0.224%
7/3/2009	23.92	-0.79%	0.145%	35.60	2.62%	0.110%	22.07	1.05%	0.224%
6/26/2009	24.11	-1.59%	0.145%	34.69	1.26%	0.111%	21.84	1.06%	0.224%
6/19/2009	24.50	-3.69%	0.148%	34.26	-1.66%	0.113%	21.61	-2.04%	0.226%
6/12/2009	25.44	7.21%	0.144%	34.84	1.37%	0.112%	22.06	1.15%	0.224%
6/5/2009	23.73	4.72%	0.142%	34.37	2.97%	0.112%	21.81	4.96%	0.224%
5/29/2009	22.66	3.90%	0.139%	33.38	0.54%	0.110%	20.78	5.59%	0.222%
5/22/2009	21.81	-2.37%	0.136%	33.20	-3.63%	0.110%	19.68	3.42%	0.218%
5/15/2009	22.34	-6.68%	0.136%	34.45	-1.74%	0.111%	19.03	-6.72%	0.216%
5/8/2009	23.94	-2.37%	0.132%	35.06	0.00%	0.112%	20.40	0.59%	0.215%
5/1/2009	24.52	-0.16%	0.135%	35.06	1.98%	0.112%	20.28	1.20%	0.213%
4/24/2009	24.56	-3.46%	0.134%	34.38	-1.12%	0.111%	20.04	-5.61%	0.214%
4/17/2009	25.44	-1.09%	0.134%	34.77	-0.49%	0.111%	21.23	-1.53%	0.215%
4/10/2009	25.72	-0.43%	0.139%	34.94	-2.48%	0.114%	21.56	2.47%	0.221%
4/3/2009	25.83	-1.26%	0.139%	35.83	2.11%	0.116%	21.04	-1.91%	0.219%
3/27/2009	26.16	-0.72%	0.143%	35.09	-0.48%	0.117%	21.45	6.19%	0.223%
3/20/2009	26.35	16.08%	0.144%	35.26	6.20%	0.118%	20.20	8.02%	0.214%
3/13/2009	22.70	0.09%	0.137%	33.20	-0.33%	0.118%	18.70	6.67%	0.212%
3/6/2009	22.68	-6.05%	0.138%	33.31	-7.63%	0.119%	17.53	-10.06%	0.196%
2/27/2009	24.14	-2.70%	0.131%	36.06	0.25%	0.112%	19.49	-9.68%	0.183%
2/20/2009	24.81	-4.69%	0.129%	35.97	-4.99%	0.112%	21.58	-10.86%	0.178%
2/13/2009	26.03	-4.41%	0.123%	37.86	-0.79%	0.106%	24.21	-7.67%	0.165%
2/6/2009	27.23	5.09%	0.120%	38.16	2.31%	0.106%	26.22	1.79%	0.158%
1/30/2009	25.91	2.37%	0.116%	37.30	2.05%	0.105%	25.76	4.25%	0.158%
1/23/2009	25.31	-7.15%	0.120%	36.55	-1.22%	0.107%	24.71	-1.51%	0.164%
1/16/2009	27.26	-1.41%	0.118%	37.00	-0.94%	0.106%	25.09	1.74%	0.163%
1/9/2009	27.65	-11.60%	0.121%	37.35	-6.48%	0.108%	24.66	-2.53%	0.171%
1/2/2009	31.28	-0.10%	0.112%	39.94	7.02%	0.103%	25.30	2.18%	0.169%
12/26/2008	31.31	1.99%		37.32	0.95%		24.76	0.61%	
12/19/2008	30.70	-0.55%		36.97	3.15%		24.61	1.74%	
12/12/2008	30.87	-3.47%		35.84	-2.37%		24.19	-2.77%	
12/5/2008	31.98	-4.82%		36.71	-5.87%		24.88	-3.94%	
11/28/2008	33.60	4.02%		39.00	4.33%		25.90	9.10%	
11/21/2008	32.30	0.78%		37.38	5.47%		23.74	-2.34%	
11/14/2008	32.05	-0.56%		35.44	3.63%		24.31	-6.10%	
11/7/2008	32.23	-2.10%		34.20	0.38%		25.89	-0.88%	
10/31/2008	32.92	8.43%		34.07	7.61%		26.12	7.98%	
10/24/2008	30.36	0.43%		31.66	2.19%		24.19	-1.67%	
10/17/2008	30.23	9.33%		30.98	2.24%		24.60	4.24%	
10/10/2008	27.65	-15.37%		30.30	-14.67%		23.60	-20.05%	
10/3/2008	32.67	1.24%		35.51	-3.37%		29.52	-5.57%	
9/26/2008	32.27	-2.92%		36.75	-3.21%		31.26	-2.01%	
9/19/2008	33.24	10.25%		37.97	6.96%		31.90	3.34%	
9/12/2008	30.15	7.68%		35.50	2.81%		30.87	7.34%	
9/5/2008	28.00	-2.95%		34.53	-3.20%		28.76	-5.24%	
8/29/2008	28.85	0.42%		35.67	1.16%		30.35	1.95%	
8/22/2008	28.73	1.20%		35.26	1.29%		29.77	0.85%	
8/15/2008	28.39	3.80%		34.81	0.55%		29.52	4.50%	
8/8/2008	27.35	2.97%		34.62	-3.99%		28.25	-0.63%	
8/1/2008	26.56	2.00%		36.06	-3.17%		28.43	0.78%	

BETA ANALYSIS

Date	Price	WGL Weekly Return	Covar.	Price	SPX Weekly Return	Var.	Average Proxy Group Covariance	Raw Beta	Adj. Beta
1/29/2010	31.73	-1.24%	0.061%	1,073.87	-1.64%	0.117%	0.070%	0.602	0.735
1/22/2010	32.13	-1.08%	0.060%	1,091.76	-3.90%	0.116%	0.069%	0.597	0.731
1/15/2010	32.48	0.00%	0.060%	1,136.03	-0.78%	0.114%	0.069%	0.610	0.740
1/8/2010	32.48	-3.16%	0.056%	1,144.98	2.68%	0.118%	0.068%	0.579	0.719
1/1/2010	33.54	-1.93%	0.062%	1,115.10	-1.01%	0.122%	0.074%	0.608	0.739
12/25/2009	34.20	1.48%	0.068%	1,126.48	2.18%	0.129%	0.078%	0.602	0.735
12/18/2009	33.70	1.29%	0.068%	1,102.47	-0.36%	0.129%	0.077%	0.596	0.731
12/11/2009	33.27	4.43%	0.068%	1,106.41	0.04%	0.129%	0.077%	0.597	0.731
12/4/2009	31.86	1.27%	0.068%	1,105.98	1.33%	0.129%	0.078%	0.600	0.733
11/27/2009	31.46	0.41%	0.072%	1,091.49	0.01%	0.131%	0.080%	0.615	0.743
11/20/2009	31.33	-1.76%	0.076%	1,091.38	-0.19%	0.156%	0.090%	0.575	0.717
11/13/2009	31.89	-4.03%	0.055%	1,093.48	2.26%	0.171%	0.084%	0.492	0.661
11/6/2009	33.23	0.51%	0.054%	1,069.30	3.20%	0.179%	0.087%	0.483	0.656
10/30/2009	33.06	-3.47%	0.057%	1,036.19	-4.02%	0.181%	0.088%	0.488	0.659
10/23/2009	34.25	1.03%	0.076%	1,079.60	-0.74%	0.197%	0.104%	0.528	0.685
10/16/2009	33.90	2.08%	0.066%	1,087.68	1.51%	0.207%	0.099%	0.481	0.654
10/9/2009	33.21	1.31%	0.071%	1,071.49	4.51%	0.210%	0.104%	0.495	0.664
10/2/2009	32.78	-1.47%	0.155%	1,025.21	-1.84%	0.271%	0.164%	0.602	0.735
9/25/2009	33.27	-2.06%	0.159%	1,044.38	-2.24%	0.288%	0.167%	0.581	0.720
9/18/2009	33.97	4.23%	0.161%	1,068.30	2.45%	0.289%	0.168%	0.582	0.722
9/11/2009	32.59	-1.54%	0.160%	1,042.73	2.59%	0.287%	0.166%	0.579	0.719
9/4/2009	33.10	-2.07%	0.162%	1,016.40	-1.22%	0.286%	0.168%	0.586	0.724
8/28/2009	33.80	-0.29%	0.163%	1,028.93	0.27%	0.287%	0.169%	0.588	0.725
8/21/2009	33.90	1.47%	0.163%	1,026.13	2.20%	0.287%	0.169%	0.588	0.725
8/14/2009	33.41	-0.03%	0.162%	1,004.09	-0.63%	0.286%	0.168%	0.586	0.724
8/7/2009	33.42	0.91%	0.162%	1,010.48	2.33%	0.286%	0.168%	0.587	0.725
7/31/2009	33.12	-0.72%	0.158%	987.48	0.84%	0.287%	0.169%	0.589	0.726
7/24/2009	33.36	5.50%	0.158%	979.26	4.13%	0.287%	0.169%	0.590	0.727
7/17/2009	31.62	2.86%	0.153%	940.38	6.97%	0.283%	0.164%	0.582	0.721
7/10/2009	30.74	-3.21%	0.148%	879.13	-1.93%	0.273%	0.158%	0.578	0.719
7/3/2009	31.76	-1.46%	0.147%	896.42	-2.45%	0.273%	0.157%	0.574	0.716
6/26/2009	32.23	1.16%	0.146%	918.90	-0.25%	0.272%	0.157%	0.575	0.717
6/19/2009	31.86	-0.53%	0.146%	921.23	-2.64%	0.274%	0.158%	0.577	0.718
6/12/2009	32.03	2.50%	0.147%	946.21	0.65%	0.274%	0.156%	0.571	0.714
6/5/2009	31.25	5.15%	0.146%	940.09	2.28%	0.274%	0.156%	0.569	0.713
5/29/2009	29.72	3.09%	0.143%	919.14	3.62%	0.273%	0.152%	0.558	0.705
5/22/2009	28.83	0.03%	0.140%	887.00	0.47%	0.271%	0.150%	0.553	0.702
5/15/2009	28.82	-5.66%	0.140%	882.88	-4.99%	0.272%	0.150%	0.552	0.701
5/8/2009	30.55	-2.46%	0.137%	929.23	5.89%	0.270%	0.147%	0.544	0.696
5/1/2009	31.32	1.66%	0.141%	877.52	1.30%	0.262%	0.148%	0.564	0.710
4/24/2009	30.81	-2.35%	0.141%	866.23	-0.39%	0.262%	0.148%	0.564	0.709
4/17/2009	31.55	0.64%	0.141%	869.60	1.52%	0.262%	0.148%	0.562	0.708
4/10/2009	31.35	-1.57%	0.147%	856.56	1.67%	0.266%	0.152%	0.572	0.715
4/3/2009	31.85	-4.04%	0.148%	842.50	3.26%	0.266%	0.153%	0.575	0.717
3/27/2009	33.19	2.50%	0.154%	815.94	6.17%	0.268%	0.155%	0.580	0.720
3/20/2009	32.38	4.72%	0.151%	768.54	1.58%	0.258%	0.154%	0.596	0.731
3/13/2009	30.92	3.62%	0.149%	756.55	10.71%	0.260%	0.151%	0.580	0.720
3/6/2009	29.84	-1.71%	0.141%	683.38	-7.03%	0.234%	0.146%	0.622	0.748
2/27/2009	30.36	-4.80%	0.140%	735.09	-4.54%	0.228%	0.138%	0.605	0.737
2/20/2009	31.89	-4.69%	0.137%	770.05	-6.87%	0.225%	0.136%	0.605	0.737
2/13/2009	33.46	-4.51%	0.131%	826.84	-4.81%	0.219%	0.127%	0.583	0.722
2/6/2009	35.04	9.16%	0.128%	868.60	5.17%	0.217%	0.124%	0.572	0.714
1/30/2009	32.10	1.33%	0.118%	825.88	-0.73%	0.212%	0.120%	0.566	0.710
1/23/2009	31.68	-2.25%	0.119%	831.95	-2.14%	0.219%	0.124%	0.565	0.710
1/16/2009	32.41	4.82%	0.118%	850.12	-4.52%	0.219%	0.123%	0.561	0.707
1/9/2009	30.92	-5.65%	0.125%	890.35	-4.45%	0.220%	0.128%	0.580	0.720
1/2/2009	32.77	5.03%	0.121%	931.80	6.76%	0.217%	0.124%	0.569	0.713
12/26/2008	31.20	-0.41%		872.80	-1.70%				
12/19/2008	31.33	-1.45%		887.88	0.93%				
12/12/2008	31.79	-5.33%		879.73	0.42%				
12/5/2008	33.58	-6.98%		876.07	-2.25%				
11/28/2008	36.10	1.75%		896.24	12.03%				
11/21/2008	35.48	11.85%		800.03	-8.39%				
11/14/2008	31.72	1.76%		873.29	-6.20%				
11/7/2008	31.17	-3.17%		930.99	-3.90%				
10/31/2008	32.19	11.69%		968.75	10.49%				
10/24/2008	28.82	8.02%		876.77	-6.78%				
10/17/2008	26.68	7.41%		940.55	4.60%				
10/10/2008	24.84	-23.59%		899.22	-18.20%				
10/3/2008	32.51	-2.37%		1,099.23	-9.38%				
9/26/2008	33.30	-5.24%		1,213.01	-3.35%				
9/19/2008	35.14	3.87%		1,255.08	0.27%				
9/12/2008	33.83	6.92%		1,251.70	0.76%				
9/5/2008	31.64	-1.74%		1,242.31	-3.16%				
8/29/2008	32.20	-1.50%		1,282.83	-0.73%				
8/22/2008	32.69	0.71%		1,292.20	-0.46%				
8/15/2008	32.46	0.15%		1,298.20	0.15%				
8/8/2008	32.41	-6.52%		1,296.32	2.86%				
8/1/2008	34.67	2.15%		1,260.31	0.20%				

BETA ANALYSIS

Chart 1: Proxy Group Covariance and S&P 500 Variance
(Rolling twelve month calculation)

CAPM UTILIZING ALTERNATIVE MARKET RISK PREMIUM CALCULATION

Long-Term Projected 30-Year Treasury Yield (2011-2020)	5.75%
Projected 30-Year Treasury Yield (2010-2011)	4.88%
Ex-Ante Approach Derived Market Risk Premium	7.38%
Average Market Risk Premium	7.38%
Proxy Group Beta- Rolling twelve month calculation	0.73

CAPM Result	
Long-Term Projected 30-Year Treasury Yield (2011-2020)	11.17%
Projected 30-Year Treasury Yield (2010-2011)	10.30%
Average	10.73%

ESTIMATION OF MARKET RISK PREMIUM

Estimated Weighted Index Dividend Yield	Weighted Index Long-Term Growth Rate	S&P 500 Estimated Required Market Return
1.97%	10.19%	12.26%

Percent of Index Capitalization Represented by Estimate: 96.50%

Projected 30-Year Treasury Yield (2010 - Q4 2011)	4.88%
Implied Market Risk Premium	7.38%

Standard and Poor's 500 Index

Ticker		Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
MMM	UN Equity	3M CO	0.56%	10.86%	0.06%	2.65%	0.01%
ABT	UN Equity	ABBOTT LABORATORIES	0.83%	10.98%	0.09%	3.20%	0.03%
ANF	UN Equity	ABERCROMBIE & FITCH CO-CL A	0.03%	15.39%	0.00%	2.19%	0.00%
ADBE	UW Equity	ADOBE SYSTEMS INC	0.17%	13.31%	0.02%	0.00%	0.00%
AMD	UN Equity	ADVANCED MICRO DEVICES	0.05%	11.67%	0.01%	1.59%	0.00%
AES	UN Equity	AES CORP	0.09%	7.50%	0.01%	0.00%	0.00%
AET	UN Equity	AETNA INC	0.13%	11.00%	0.01%	0.09%	0.00%
ACS	UN Equity	AFFILIATED COMPUTER SVCS-A	0.06%	10.00%	0.01%	0.00%	0.00%
AFL	UN Equity	AFLAC INC	0.23%	No Long-Term Growth		2.32%	0.00%
A	UN Equity	AGILENT TECHNOLOGIES INC	0.10%	15.00%	0.02%	0.00%	0.00%
APD	UN Equity	AIR PRODUCTS & CHEMICALS INC	0.16%	10.45%	0.02%	2.40%	0.00%
ARG	UN Equity	AIRGAS INC	0.04%	11.44%	0.00%	1.63%	0.00%
AKS	UN Equity	AK STEEL HOLDING CORP	0.02%	10.00%	0.00%	0.83%	0.00%
AKAM	UW Equity	AKAMAI TECHNOLOGIES	0.04%	14.11%	0.01%	0.00%	0.00%
AA	UN Equity	ALCOA INC	0.13%	9.00%	0.01%	1.02%	0.00%
AYE	UN Equity	ALLEGHENY ENERGY INC	0.03%	6.00%	0.00%	2.99%	0.00%
ATI	UN Equity	ALLEGHENY TECHNOLOGIES INC	0.04%	15.00%	0.01%	1.61%	0.00%
AGN	UN Equity	ALLERGAN INC	0.17%	13.30%	0.02%	0.44%	0.00%
ALL	UN Equity	ALLSTATE CORP	0.16%	8.00%	0.01%	2.62%	0.00%
ALTR	UW Equity	ALTERA CORPORATION	0.06%	19.33%	0.01%	0.96%	0.00%
MO	UN Equity	ALTRIA GROUP INC	0.41%	7.50%	0.03%	7.18%	0.03%
AMZN	UW Equity	AMAZON.COM INC	0.52%	27.01%	0.14%	0.00%	0.00%
AEE	UN Equity	AMEREN CORPORATION	0.06%	4.00%	0.00%	6.00%	0.00%
AEP	UN Equity	AMERICAN ELECTRIC POWER	0.16%	4.67%	0.01%	4.79%	0.01%
AXP	UN Equity	AMERICAN EXPRESS CO	0.46%	10.71%	0.05%	1.85%	0.01%
AIG	UN Equity	AMERICAN INTERNATIONAL GROUP	0.16%	6.00%	0.01%	8.47%	0.01%
AMT	UN Equity	AMERICAN TOWER CORP-CL A	0.17%	20.60%	0.04%	0.00%	0.00%
AMP	UN Equity	AMERIPRISE FINANCIAL INC	0.10%	15.60%	0.02%	1.64%	0.00%
ABC	UN Equity	AMERISOURCEBERGEN CORP	0.08%	12.88%	0.01%	0.94%	0.00%
AMGN	UW Equity	AMGEN INC	0.58%	8.95%	0.05%	0.00%	0.00%
APH	UN Equity	AMPHENOL CORP-CL A	0.07%	17.50%	0.01%	0.15%	0.00%
APC	UN Equity	ANADARKO PETROLEUM CORP	0.32%	7.12%	0.02%	0.55%	0.00%
ADI	UN Equity	ANALOG DEVICES INC	0.08%	10.67%	0.01%	2.90%	0.00%
AON	UN Equity	AON CORP	0.11%	5.75%	0.01%	1.56%	0.00%
APA	UN Equity	APACHE CORP	0.35%	8.45%	0.03%	0.59%	0.00%
AIV	UN Equity	APARTMENT INVT & MGMT CO -A	0.02%	7.55%	0.00%	2.53%	0.00%
APOL	UW Equity	APOLLO GROUP INC-CL A	0.09%	16.62%	0.02%	0.00%	0.00%
AAPL	UW Equity	APPLE INC	1.75%	19.05%	0.33%	0.00%	0.00%
AMAT	UW Equity	APPLIED MATERIALS INC	0.17%	10.50%	0.02%	1.87%	0.00%
ADM	UN Equity	ARCHER-DANIELS-MIDLAND CO	0.20%	10.00%	0.02%	1.79%	0.00%
AIZ	UN Equity	ASSURANT INC	0.04%	10.00%	0.00%	1.89%	0.00%
T	UN Equity	AT&T INC	1.49%	5.56%	0.08%	6.55%	0.10%
ADSK	UW Equity	AUTODESK INC	0.05%	12.87%	0.01%	0.00%	0.00%
ADP	UW Equity	AUTOMATIC DATA PROCESSING	0.20%	10.09%	0.02%	3.26%	0.01%
AN	UN Equity	AUTONATION INC	0.03%	12.00%	0.00%	0.00%	0.00%
AZO	UN Equity	AUTOZONE INC	0.08%	12.70%	0.01%	0.00%	0.00%
AVB	UN Equity	AVALONBAY COMMUNITIES INC	0.06%	6.61%	0.00%	4.49%	0.00%
AVY	UN Equity	AVERY DENNISON CORP	0.04%	7.00%	0.00%	2.39%	0.00%
AVP	UN Equity	AVON PRODUCTS INC	0.14%	13.00%	0.02%	2.74%	0.00%
BHI	UN Equity	BAKER HUGHES INC	0.14%	8.50%	0.01%	1.25%	0.00%
BLL	UN Equity	BALL CORP	0.05%	7.70%	0.00%	0.77%	0.00%
BK	UN Equity	BANK OF NEW YORK MELLON CORP	0.35%	11.08%	0.04%	1.62%	0.01%
BAC	UN Equity	BANK OF AMERICA CORP	1.33%	6.50%	0.09%	0.33%	0.00%
BAX	UN Equity	BAXTER INTERNATIONAL INC	0.35%	12.00%	0.04%	1.96%	0.01%
BBT	UN Equity	BB&T CORP	0.19%	6.75%	0.01%	2.28%	0.00%
BDX	UN Equity	BECTON DICKINSON AND CO	0.18%	11.50%	0.02%	1.87%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
BBBY UW Equity	BED BATH & BEYOND INC	0.10%	13.32%	0.01%	0.00%	0.00%
BMS UN Equity	BEMIS COMPANY	0.03%	9.25%	0.00%	3.29%	0.00%
BBY UN Equity	BEST BUY CO INC	0.15%	13.63%	0.02%	1.50%	0.00%
BIG UN Equity	BIG LOTS INC	0.02%	14.50%	0.00%	0.00%	0.00%
BIIB UW Equity	BIOGEN IDEC INC	0.16%	8.68%	0.01%	0.00%	0.00%
BJS UN Equity	BJ SERVICES CO	0.06%	5.00%	0.00%	0.93%	0.00%
BDK UN Equity	BLACK & DECKER CORP	0.04%	4.50%	0.00%	0.70%	0.00%
BMC UW Equity	BMC SOFTWARE INC	0.07%	15.55%	0.01%	0.00%	0.00%
BA UN Equity	BOEING CO	0.44%	13.60%	0.06%	2.75%	0.01%
BXP UN Equity	BOSTON PROPERTIES INC	0.09%	4.65%	0.00%	2.95%	0.00%
BSX UN Equity	BOSTON SCIENTIFIC CORP	0.12%	12.32%	0.02%	0.00%	0.00%
BMY UN Equity	BRISTOL-MYERS SQUIBB CO	0.42%	4.00%	0.02%	5.12%	0.02%
BRCM UW Equity	BROADCOM CORP-CL A	0.12%	14.83%	0.02%	0.00%	0.00%
BF/B UN Equity	BROWN-FORMAN CORP-CLASS B	0.05%	13.00%	0.01%	2.33%	0.00%
BNI UN Equity	BURLINGTON NORTHERN SANTA FE	0.33%	10.37%	0.03%	1.67%	0.01%
CA UW Equity	CA INC	0.11%	13.67%	0.02%	0.72%	0.00%
COG UN Equity	CABOT OIL & GAS CORP	0.04%	No Long-Term Growth		0.24%	0.00%
CAM UN Equity	CAMERON INTERNATIONAL CORP	0.10%	No Long-Term Growth		0.00%	0.00%
CPB UN Equity	CAMPBELL SOUP CO	0.11%	8.03%	0.01%	3.23%	0.00%
COF UN Equity	CAPITAL ONE FINANCIAL CORP	0.17%	10.08%	0.02%	0.67%	0.00%
CAH UN Equity	CARDINAL HEALTH INC	0.12%	11.63%	0.01%	1.96%	0.00%
CFN UN Equity	CAREFUSION CORP	0.06%	10.28%	0.01%	0.00%	0.00%
CCL UN Equity	CARNIVAL CORP	0.21%	11.04%	0.02%	1.04%	0.00%
CAT UN Equity	CATERPILLAR INC	0.33%	12.60%	0.04%	3.13%	0.01%
CBG UN Equity	CB RICHARD ELLIS GROUP INC-A	0.04%	13.33%	0.01%	0.00%	0.00%
CBS UN Equity	CBS CORP-CLASS B NON VOTING	0.08%	2.80%	0.00%	1.52%	0.00%
CELG UW Equity	CELGENE CORP	0.26%	24.10%	0.06%	0.00%	0.00%
CNP UN Equity	CENTERPOINT ENERGY INC	0.06%	2.00%	0.00%	5.46%	0.00%
CTL UN Equity	CENTURYTEL INC	0.10%	2.24%	0.00%	8.20%	0.01%
CEPH UW Equity	CEPHALON INC	0.05%	11.83%	0.01%	0.00%	0.00%
CF UN Equity	CF INDUSTRIES HOLDINGS INC	0.05%	3.50%	0.00%	1.49%	0.00%
CHRW UW Equity	C.H. ROBINSON WORLDWIDE INC	0.09%	No Long-Term Growth		1.76%	0.00%
CHK UN Equity	CHESAPEAKE ENERGY CORP	0.17%	8.80%	0.01%	1.17%	0.00%
CVX UN Equity	CHEVRON CORP	1.47%	18.70%	0.28%	3.78%	0.06%
CB UN Equity	CHUBB CORP	0.17%	8.20%	0.01%	2.96%	0.00%
CI UN Equity	CIGNA CORP	0.09%	8.66%	0.01%	0.05%	0.00%
CINF UW Equity	CINCINNATI FINANCIAL CORP	0.04%	No Long-Term Growth		6.08%	0.00%
CTAS UW Equity	CINTAS CORP	0.04%	9.75%	0.00%	1.90%	0.00%
CSCO UW Equity	CISCO SYSTEMS INC	1.30%	11.70%	0.15%	0.00%	0.00%
C UN Equity	CITIGROUP INC	0.96%	1.50%	0.01%	0.23%	0.00%
CTXS UW Equity	CITRIX SYSTEMS INC	0.08%	11.77%	0.01%	0.00%	0.00%
CLF UN Equity	CLIFFS NATURAL RESOURCES INC	0.06%	18.00%	0.01%	0.64%	0.00%
CLX UN Equity	CLOROX COMPANY	0.08%	9.50%	0.01%	3.23%	0.00%
CME UW Equity	CME GROUP INC	0.19%	9.48%	0.02%	1.60%	0.00%
CMS UN Equity	CMS ENERGY CORP	0.04%	5.80%	0.00%	3.90%	0.00%
COH UN Equity	COACH INC	0.11%	14.67%	0.02%	0.84%	0.00%
KO UN Equity	COCA-COLA CO/THE	1.26%	8.87%	0.11%	3.24%	0.04%
CCE UN Equity	COCA-COLA ENTERPRISES	0.10%	9.33%	0.01%	1.61%	0.00%
CTSH UW Equity	COGNIZANT TECH SOLUTIONS-A	0.13%	17.79%	0.02%	0.00%	0.00%
CL UN Equity	COLGATE-PALMOLIVE CO	0.40%	9.75%	0.04%	2.34%	0.01%
CMCSA UW Equity	COMCAST CORP-CLASS A	0.33%	13.54%	0.04%	2.33%	0.01%
CMA UN Equity	COMERICA INC	0.05%	4.94%	0.00%	0.57%	0.00%
CSC UN Equity	COMPUTER SCIENCES CORP	0.08%	8.58%	0.01%	0.00%	0.00%
CPWR UW Equity	COMPUWARE CORP	0.02%	No Long-Term Growth		0.00%	0.00%
CAG UN Equity	CONAGRA FOODS INC	0.10%	10.13%	0.01%	3.45%	0.00%
COP UN Equity	CONOCOPHILLIPS	0.73%	No Long-Term Growth		3.99%	0.00%
ED UN Equity	CONSOLIDATED EDISON INC	0.12%	4.26%	0.01%	5.41%	0.01%
CNX UN Equity	CONSOL ENERGY INC	0.09%	9.50%	0.01%	0.81%	0.00%
CEG UN Equity	CONSTELLATION ENERGY GROUP	0.07%	5.00%	0.00%	2.92%	0.00%
STZ UN Equity	CONSTELLATION BRANDS INC-A	0.03%	10.00%	0.00%	0.00%	0.00%
GLW UN Equity	CORNING INC	0.29%	12.83%	0.04%	1.07%	0.00%
COST UW Equity	COSTCO WHOLESALE CORP	0.25%	12.37%	0.03%	1.28%	0.00%
CVH UN Equity	COVENTRY HEALTH CARE INC	0.03%	6.60%	0.00%	0.00%	0.00%
BCR UN Equity	CR BARD INC	0.08%	12.60%	0.01%	0.84%	0.00%
CSX UN Equity	CSX CORP	0.17%	9.78%	0.02%	2.06%	0.00%
CMI UN Equity	CUMMINS INC	0.10%	8.50%	0.01%	1.40%	0.00%
CVS UN Equity	CVS CAREMARK CORP	0.46%	14.56%	0.07%	1.00%	0.00%
DHR UN Equity	DANAHER CORP	0.23%	13.04%	0.03%	0.20%	0.00%
DRI UN Equity	DARDEN RESTAURANTS INC	0.05%	11.85%	0.01%	2.61%	0.00%
DVA UN Equity	DAVITA INC	0.06%	12.06%	0.01%	0.00%	0.00%
DF UN Equity	DEAN FOODS CO	0.03%	12.18%	0.00%	0.00%	0.00%
DE UN Equity	DEERE & CO	0.22%	8.75%	0.02%	2.11%	0.00%
DELL UW Equity	DELL INC	0.26%	9.29%	0.02%	0.00%	0.00%
DNR UN Equity	DENBURY RESOURCES INC	0.04%	5.30%	0.00%	0.00%	0.00%
XRAY UW Equity	DENTSPLY INTERNATIONAL INC	0.05%	11.50%	0.01%	0.64%	0.00%
DVN UN Equity	DEVON ENERGY CORPORATION	0.31%	4.19%	0.01%	0.91%	0.00%
DV UN Equity	DEVRY INC	0.04%	20.41%	0.01%	0.28%	0.00%
DO UN Equity	DIAMOND OFFSHORE DRILLING	0.13%	No Long-Term Growth		7.74%	0.00%
DTV UW Equity	DIRECTV-CLASS A	0.30%	20.26%	0.06%	0.00%	0.00%
DFS UN Equity	DISCOVER FINANCIAL SERVICES	0.07%	7.67%	0.01%	0.58%	0.00%
D UN Equity	DOMINION RESOURCES INC/VA	0.22%	4.00%	0.01%	4.74%	0.01%

Standard and Poor's 500 Index

Ticker		Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
DOV	UN Equity	DOVER CORP	0.08%	14.00%	0.01%	2.43%	0.00%
DOW	UN Equity	DOW CHEMICAL	0.31%	7.50%	0.02%	3.22%	0.01%
DHI	UN Equity	DR HORTON INC	0.04%	7.67%	0.00%	1.14%	0.00%
DPS	UN Equity	DR PEPPER SNAPPLE GROUP INC	0.07%	9.50%	0.01%	1.71%	0.00%
DTE	UN Equity	DTE ENERGY COMPANY	0.07%	4.50%	0.00%	5.00%	0.00%
DD	UN Equity	DU PONT (E.I.) DE NEMOURS	0.30%	8.25%	0.02%	4.88%	0.01%
DUK	UN Equity	DUKE ENERGY CORP	0.22%	4.40%	0.01%	5.85%	0.01%
DNB	UN Equity	DUN & BRADSTREET CORP	0.04%	No Long-Term Growth		0.00%	0.00%
ETFC	UW Equity	E*TRADE FINANCIAL CORP	0.03%	No Long-Term Growth		0.00%	0.00%
EMN	UN Equity	EASTMAN CHEMICAL COMPANY	0.04%	11.50%	0.00%	2.97%	0.00%
EK	UN Equity	EASTMAN KODAK CO	0.02%	10.00%	0.00%	0.00%	0.00%
ETN	UN Equity	EATON CORP	0.11%	9.75%	0.01%	3.12%	0.00%
EBAY	UW Equity	EBAY INC	0.29%	11.58%	0.03%	0.00%	0.00%
ECL	UN Equity	ECOLAB INC	0.10%	12.06%	0.01%	1.29%	0.00%
EIX	UN Equity	EDISON INTERNATIONAL	0.11%	4.26%	0.00%	3.84%	0.00%
EP	UN Equity	EL PASO CORP	0.07%	8.00%	0.01%	0.38%	0.00%
ERTS	UW Equity	ELECTRONIC ARTS INC	0.05%	14.23%	0.01%	0.00%	0.00%
LLY	UN Equity	ELI LILLY & CO	0.40%	No Long-Term Growth		5.44%	0.00%
EMC	UN Equity	EMC CORP/MASS	0.34%	14.25%	0.05%	0.00%	0.00%
EMR	UN Equity	EMERSON ELECTRIC CO	0.35%	11.94%	0.04%	2.92%	0.01%
ETR	UN Equity	ENTERGY CORP	0.15%	4.33%	0.01%	3.95%	0.01%
EOG	UN Equity	EOG RESOURCES INC	0.24%	10.67%	0.03%	0.58%	0.00%
EQT	UN Equity	EQT CORP	0.06%	16.00%	0.01%	2.01%	0.00%
EFX	UN Equity	EQUIFAX INC	0.04%	9.50%	0.00%	0.00%	0.00%
EQR	UN Equity	EQUITY RESIDENTIAL	0.09%	3.14%	0.00%	4.09%	0.00%
EL	UN Equity	ESTEE LAUDER COMPANIES-CL A	0.07%	13.42%	0.01%	1.01%	0.00%
EXC	UN Equity	EXELON CORP	0.30%	1.18%	0.00%	4.60%	0.01%
EXPE	UW Equity	EXPEDIA INC	0.06%	14.00%	0.01%	0.00%	0.00%
EXPD	UW Equity	EXPEDITORS INTL WASH INC	0.07%	16.75%	0.01%	1.21%	0.00%
ESRX	UW Equity	EXPRESS SCRIPTS INC	0.24%	19.49%	0.05%	0.00%	0.00%
XOM	UN Equity	EXXON MOBIL CORP	3.13%	4.24%	0.13%	2.64%	0.08%
FDO	UN Equity	FAMILY DOLLAR STORES	0.04%	12.51%	0.01%	1.82%	0.00%
FAST	UW Equity	FASTENAL CO	0.06%	16.00%	0.01%	1.84%	0.00%
FII	UN Equity	FEDERATED INVESTORS INC-CL B	0.03%	8.40%	0.00%	5.50%	0.00%
FDX	UN Equity	FEDEX CORP	0.25%	12.00%	0.03%	0.54%	0.00%
FIS	UN Equity	FIDELITY NATIONAL INFORMATIO	0.09%	13.86%	0.01%	0.84%	0.00%
FITB	UW Equity	FIFTH THIRD BANCORP	0.10%	3.17%	0.00%	0.32%	0.00%
FHN	UN Equity	FIRST HORIZON NATIONAL CORP	0.03%	4.33%	0.00%	0.04%	0.00%
FSLR	UW Equity	FIRST SOLAR INC	0.10%	29.92%	0.03%	0.00%	0.00%
FE	UN Equity	FIRSTENERGY CORP	0.13%	3.00%	0.00%	5.08%	0.01%
FISV	UW Equity	FISERV INC	0.07%	No Long-Term Growth		0.00%	0.00%
FLIR	UW Equity	FLIR SYSTEMS INC	0.04%	15.85%	0.01%	0.00%	0.00%
FLS	UN Equity	FLOWSERVE CORP	0.05%	No Long-Term Growth		1.14%	0.00%
FLR	UN Equity	FLUOR CORP	0.08%	36.00%	0.03%	1.22%	0.00%
FMC	UN Equity	FMC CORP	0.04%	7.45%	0.00%	0.89%	0.00%
FTI	UN Equity	FMC TECHNOLOGIES INC	0.07%	25.50%	0.02%	0.00%	0.00%
F	UN Equity	FORD MOTOR CO	0.36%	10.00%	0.04%	0.00%	0.00%
FRX	UN Equity	FOREST LABORATORIES INC	0.09%	5.75%	0.01%	0.00%	0.00%
FO	UN Equity	FORTUNE BRANDS INC	0.06%	10.67%	0.01%	1.80%	0.00%
FPL	UN Equity	FPL GROUP INC	0.20%	6.95%	0.01%	4.00%	0.01%
BEN	UN Equity	FRANKLIN RESOURCES INC	0.23%	9.86%	0.02%	3.49%	0.01%
FCX	UN Equity	FREEPORT-MCMORAN COPPER	0.31%	10.00%	0.03%	0.98%	0.00%
FTR	UN Equity	FRONTIER COMMUNICATIONS CORP	0.02%	3.50%	0.00%	12.95%	0.00%
GME	UN Equity	GAMESTOP CORP-CLASS A	0.03%	14.33%	0.00%	0.00%	0.00%
GCI	UN Equity	GANNETT CO	0.04%	3.33%	0.00%	1.06%	0.00%
GPS	UN Equity	GAP INC/THE	0.13%	11.33%	0.01%	1.80%	0.00%
GD	UN Equity	GENERAL DYNAMICS CORP	0.27%	7.23%	0.02%	2.26%	0.01%
GE	UN Equity	GENERAL ELECTRIC CO	1.77%	9.87%	0.17%	2.39%	0.04%
GIS	UN Equity	GENERAL MILLS INC	0.23%	9.45%	0.02%	2.68%	0.01%
GPC	UN Equity	GENUINE PARTS CO	0.06%	7.90%	0.00%	4.18%	0.00%
GNW	UN Equity	GENWORTH FINANCIAL INC-CL A	0.07%	10.00%	0.01%	0.00%	0.00%
GENZ	UW Equity	GENZYME CORP	0.15%	20.39%	0.03%	0.00%	0.00%
GILD	UW Equity	GILEAD SCIENCES INC	0.43%	14.70%	0.06%	0.00%	0.00%
GS	UN Equity	GOLDMAN SACHS GROUP INC	0.79%	9.77%	0.08%	0.91%	0.01%
GR	UN Equity	GOODRICH CORP	0.08%	7.55%	0.01%	1.65%	0.00%
GT	UN Equity	GOODYEAR TIRE & RUBBER CO	0.03%	12.00%	0.00%	0.00%	0.00%
GOOG	UW Equity	GOOGLE INC-CL A	1.27%	25.00%	0.32%	0.00%	0.00%
HRB	UN Equity	H&R BLOCK INC	0.07%	12.00%	0.01%	2.76%	0.00%
HAL	UN Equity	HALLIBURTON CO	0.27%	10.00%	0.03%	1.17%	0.00%
HOG	UN Equity	HARLEY-DAVIDSON INC	0.05%	9.33%	0.01%	1.75%	0.00%
HAR	UN Equity	HARMAN INTERNATIONAL	0.03%	12.00%	0.00%	0.07%	0.00%
HRS	UN Equity	HARRIS CORP	0.06%	11.33%	0.01%	1.40%	0.00%
HIG	UN Equity	HARTFORD FINANCIAL SVCS GRP	0.10%	12.88%	0.01%	0.71%	0.00%
HAS	UN Equity	HASBRO INC	0.04%	10.00%	0.00%	2.74%	0.00%
HCP	UN Equity	HCP INC	0.09%	7.08%	0.01%	6.32%	0.01%
HCN	UN Equity	HEALTH CARE REIT INC	0.05%	4.66%	0.00%	6.31%	0.00%
HSY	UN Equity	HERSHEY CO/THE	0.06%	6.95%	0.00%	3.45%	0.00%
HES	UN Equity	HESS CORP	0.20%	1.64%	0.00%	0.65%	0.00%
HPQ	UN Equity	HEWLETT-PACKARD CO	1.13%	11.80%	0.13%	0.66%	0.01%
HNZ	UN Equity	HJ HEINZ CO	0.14%	7.45%	0.01%	3.78%	0.01%

Standard and Poor's 500 Index

Ticker		Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
HD	UN Equity	HOME DEPOT INC	0.49%	9.77%	0.05%	3.12%	0.02%
HON	UN Equity	HONEYWELL INTERNATIONAL INC	0.30%	7.84%	0.02%	3.10%	0.01%
HRL	UN Equity	HORMEL FOODS CORP	0.05%	11.00%	0.01%	2.13%	0.00%
HSP	UN Equity	HOSPIRA INC	0.08%	13.59%	0.01%	0.00%	0.00%
HST	UN Equity	HOST HOTELS & RESORTS INC	0.07%	No Long-Term Growth		1.23%	0.00%
HCBK	UW Equity	HUDSON CITY BANCORP INC	0.07%	21.33%	0.01%	4.66%	0.00%
HUM	UN Equity	HUMANA INC	0.08%	10.11%	0.01%	0.00%	0.00%
HBAN	UW Equity	HUNTINGTON BANCSHARES INC	0.03%	No Long-Term Growth		0.81%	0.00%
IBM	UN Equity	INTL BUSINESS MACHINES CORP	1.62%	9.72%	0.16%	1.79%	0.03%
ITW	UN Equity	ILLINOIS TOOL WORKS	0.22%	12.20%	0.03%	2.95%	0.01%
RX	UN Equity	IMS HEALTH INC	0.04%	8.00%	0.00%	0.53%	0.00%
TEG	UN Equity	INTEGRYS ENERGY GROUP INC	0.03%	1.50%	0.00%	6.38%	0.00%
INTC	UW Equity	INTEL CORP	1.08%	10.63%	0.12%	3.05%	0.03%
ICE	UN Equity	INTERCONTINENTALEXCHANGE INC	0.07%	14.85%	0.01%	0.00%	0.00%
IPG	UN Equity	INTERPUBLIC GROUP OF COS INC	0.03%	11.00%	0.00%	0.00%	0.00%
IFF	UN Equity	INTL FLAVORS & FRAGRANCES	0.03%	6.00%	0.00%	2.48%	0.00%
IGT	UN Equity	INTL GAME TECHNOLOGY	0.06%	14.71%	0.01%	1.26%	0.00%
IP	UN Equity	INTERNATIONAL PAPER CO	0.10%	3.67%	0.00%	0.42%	0.00%
INTU	UW Equity	INTUIT INC	0.09%	14.62%	0.01%	0.00%	0.00%
ISRG	UW Equity	INTUITIVE SURGICAL INC	0.13%	21.63%	0.03%	0.00%	0.00%
IVZ	UN Equity	INVESCO LTD	0.09%	11.50%	0.01%	2.19%	0.00%
IRM	UN Equity	IRON MOUNTAIN INC	0.05%	18.00%	0.01%	0.00%	0.00%
ITT	UN Equity	ITT CORP	0.09%	9.00%	0.01%	1.79%	0.00%
JCP	UN Equity	J.C. PENNEY CO INC	0.06%	11.75%	0.01%	3.19%	0.00%
JBL	UN Equity	JABIL CIRCUIT INC	0.03%	15.00%	0.00%	1.81%	0.00%
JEC	UN Equity	JACOBS ENGINEERING GROUP INC	0.05%	13.50%	0.01%	0.00%	0.00%
JNS	UN Equity	JANUS CAPITAL GROUP INC	0.02%	8.40%	0.00%	0.33%	0.00%
JDSU	UW Equity	JDS UNIPHASE CORP	0.02%	12.80%	0.00%	0.00%	0.00%
SJM	UN Equity	JM SMUCKER CO/THE	0.07%	8.17%	0.01%	2.29%	0.00%
JCI	UN Equity	JOHNSON CONTROLS INC	0.19%	17.33%	0.03%	1.80%	0.00%
JNJ	UN Equity	JOHNSON & JOHNSON	1.74%	7.38%	0.13%	3.25%	0.06%
JPM	UN Equity	JPMORGAN CHASE & CO	1.57%	8.50%	0.13%	1.31%	0.02%
JNPR	UN Equity	JUNIPER NETWORKS INC	0.13%	17.30%	0.02%	0.00%	0.00%
K	UN Equity	KELLOGG CO	0.21%	9.18%	0.02%	2.80%	0.01%
KEY	UN Equity	KEYCORP	0.07%	4.00%	0.00%	0.53%	0.00%
KMB	UN Equity	KIMBERLY-CLARK CORP	0.25%	9.21%	0.02%	4.23%	0.01%
KIM	UN Equity	KIMCO REALTY CORP	0.05%	2.43%	0.00%	5.32%	0.00%
KG	UN Equity	KING PHARMACEUTICALS INC	0.03%	7.70%	0.00%	0.00%	0.00%
KLAC	UW Equity	KLA-TENCOR CORPORATION	0.05%	4.50%	0.00%	1.96%	0.00%
KSS	UN Equity	KOHLS CORP	0.16%	13.36%	0.02%	0.00%	0.00%
KFT	UN Equity	KRAFT FOODS INC-CLASS A	0.42%	8.33%	0.03%	4.37%	0.02%
KR	UN Equity	KROGER CO	0.14%	8.94%	0.01%	1.79%	0.00%
LLL	UN Equity	L-3 COMMUNICATIONS HOLDINGS	0.10%	10.46%	0.01%	1.67%	0.00%
LH	UN Equity	LABORATORY CRP OF AMER HLDGS	0.08%	12.90%	0.01%	0.00%	0.00%
LM	UN Equity	LEGG MASON INC	0.04%	7.62%	0.00%	0.45%	0.00%
LEG	UN Equity	LEGGETT & PLATT INC	0.03%	15.00%	0.00%	5.39%	0.00%
LEN	UN Equity	LENNAR CORP-CL A	0.03%	10.50%	0.00%	0.96%	0.00%
LUK	UN Equity	LEUCADIA NATIONAL CORP	0.06%	No Long-Term Growth		0.00%	0.00%
LXK	UN Equity	LEXMARK INTERNATIONAL INC-A	0.02%	No Long-Term Growth		0.00%	0.00%
LIFE	UW Equity	LIFE TECHNOLOGIES CORP	0.09%	10.10%	0.01%	0.00%	0.00%
LNC	UN Equity	LINCOLN NATIONAL CORP	0.08%	8.66%	0.01%	0.15%	0.00%
LLTC	UW Equity	LINEAR TECHNOLOGY CORP	0.06%	12.17%	0.01%	3.33%	0.00%
LMT	UN Equity	LOCKHEED MARTIN CORP	0.29%	7.80%	0.02%	3.31%	0.01%
L	UN Equity	LOEWS CORP	0.16%	No Long-Term Growth		0.67%	0.00%
LO	UN Equity	LORILLARD INC	0.12%	6.00%	0.01%	5.47%	0.01%
LOW	UN Equity	LOWE'S COS INC	0.33%	11.08%	0.04%	1.76%	0.01%
LSI	UN Equity	LSI CORP	0.03%	No Long-Term Growth		0.00%	0.00%
LTD	UN Equity	LTD BRANDS INC	0.06%	12.07%	0.01%	3.01%	0.00%
MTB	UN Equity	M & T BANK CORP	0.09%	4.63%	0.00%	3.58%	0.00%
M	UN Equity	MACY'S INC	0.07%	10.00%	0.01%	1.32%	0.00%
MRO	UN Equity	MARATHON OIL CORP	0.22%	7.83%	0.02%	3.21%	0.01%
MAR	UN Equity	MARRIOTT INTERNATIONAL-CL A	0.09%	10.00%	0.01%	1.29%	0.00%
MMC	UN Equity	MARSH & MCLENNAN COS	0.12%	12.00%	0.01%	3.71%	0.00%
MI	UN Equity	MARSHALL & ILSLEY CORP	0.04%	8.83%	0.00%	0.58%	0.00%
MAS	UN Equity	MASCO CORP	0.05%	11.67%	0.01%	2.03%	0.00%
MEE	UN Equity	MASSEY ENERGY CO	0.04%	12.00%	0.00%	0.56%	0.00%
MA	UN Equity	MASTERCARD INC-CLASS A	0.27%	19.33%	0.05%	0.24%	0.00%
MAT	UW Equity	MATTEL INC	0.07%	8.50%	0.01%	3.76%	0.00%
MFE	UN Equity	MCAFEE INC	0.06%	14.30%	0.01%	0.00%	0.00%
MKC	UN Equity	MCCORMICK & CO-NON VTG SHRS	0.04%	10.10%	0.00%	2.78%	0.00%
MCD	UN Equity	MCDONALD'S CORP	0.68%	10.89%	0.07%	3.59%	0.02%
MHP	UN Equity	MCGRAW-HILL COMPANIES INC	0.11%	9.63%	0.01%	2.64%	0.00%
MCK	UN Equity	MCKESSON CORP	0.16%	13.33%	0.02%	0.75%	0.00%
MJN	UN Equity	MEAD JOHNSON NUTRITION CO	0.09%	9.00%	0.01%	1.97%	0.00%
MWV	UN Equity	MEADWESTVACO CORP	0.04%	10.00%	0.00%	3.68%	0.00%
MHS	UN Equity	MEDCO HEALTH SOLUTIONS INC	0.30%	17.62%	0.05%	0.05%	0.00%
MDT	UN Equity	MEDTRONIC INC	0.48%	11.14%	0.05%	1.89%	0.01%
WFR	UN Equity	MEMC ELECTRONIC MATERIALS	0.03%	30.00%	0.01%	0.00%	0.00%
MRK	UN Equity	MERCK & CO. INC.	1.19%	5.05%	0.06%	3.85%	0.05%
MDP	UN Equity	MEREDITH CORP	0.01%	13.00%	0.00%	2.85%	0.00%
MET	UN Equity	METLIFE INC	0.29%	No Long-Term Growth		2.11%	0.00%
PCS	UN Equity	METROPCS COMMUNICATIONS INC	0.02%	20.25%	0.00%	0.00%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
MCHP UW Equity	MICROCHIP TECHNOLOGY INC	0.05%	10.00%	0.00%	5.10%	0.00%
MU UW Equity	MICRON TECHNOLOGY INC	0.08%	10.67%	0.01%	0.00%	0.00%
MSFT UW Equity	MICROSOFT CORP	2.46%	11.18%	0.28%	1.84%	0.05%
MIL UN Equity	MILLIPORE CORP	0.04%	No Long-Term Growth		0.00%	0.00%
MOLX UW Equity	MOLEX INC	0.02%	12.50%	0.00%	2.99%	0.00%
TAP UN Equity	MOLSON COORS BREWING CO -B	0.07%	12.00%	0.01%	2.31%	0.00%
MON UN Equity	MONSANTO CO	0.42%	13.50%	0.06%	1.41%	0.01%
MWW UN Equity	MONSTER WORLDWIDE INC	0.02%	17.40%	0.00%	0.00%	0.00%
MCO UN Equity	MOODY'S CORP	0.07%	11.67%	0.01%	1.41%	0.00%
MS UN Equity	MORGAN STANLEY	0.38%	11.80%	0.04%	1.02%	0.00%
MOT UN Equity	MOTOROLA INC	0.15%	7.14%	0.01%	0.00%	0.00%
MUR UN Equity	MURPHY OIL CORP	0.10%	15.00%	0.02%	1.92%	0.00%
MYL UW Equity	MYLAN INC	0.05%	15.72%	0.01%	0.00%	0.00%
NBR UN Equity	NABORS INDUSTRIES LTD	0.07%	10.00%	0.01%	0.00%	0.00%
NDAQ UW Equity	NASDAQ OMX GROUP/THE	0.04%	14.83%	0.01%	0.00%	0.00%
NOV UN Equity	NATIONAL OILWELL VARCO INC	0.18%	7.00%	0.01%	0.40%	0.00%
NSM UN Equity	NATIONAL SEMICONDUCTOR CORP	0.03%	9.33%	0.00%	2.34%	0.00%
NTAP UW Equity	NETAPP INC	0.10%	16.67%	0.02%	0.00%	0.00%
NYT UN Equity	NEW YORK TIMES CO -CL A	0.02%	3.50%	0.00%	0.00%	0.00%
NWL UN Equity	NEWELL RUBBERMAID INC	0.04%	8.33%	0.00%	1.62%	0.00%
NEM UN Equity	NEWMONT MINING CORP	0.21%	8.10%	0.02%	0.86%	0.00%
NWSA UW Equity	NEWS CORP-CL A	0.23%	10.06%	0.02%	0.91%	0.00%
GAS UN Equity	NICOR INC	0.02%	3.50%	0.00%	4.59%	0.00%
NKE UN Equity	NIKE INC -CL B	0.25%	11.57%	0.03%	1.64%	0.00%
NI UN Equity	NISOURCE INC	0.04%	3.00%	0.00%	6.12%	0.00%
NBL UN Equity	NOBLE ENERGY INC	0.13%	7.00%	0.01%	0.96%	0.00%
JWN UN Equity	NORDSTROM INC	0.08%	12.61%	0.01%	1.78%	0.00%
NSC UN Equity	NORFOLK SOUTHERN CORP	0.18%	9.40%	0.02%	2.83%	0.01%
NU UN Equity	NORTHEAST UTILITIES	0.04%	7.89%	0.00%	3.89%	0.00%
NTRS UW Equity	NORTHERN TRUST CORP	0.12%	11.00%	0.01%	2.17%	0.00%
NOC UN Equity	NORTHROP GRUMMAN CORP	0.18%	8.50%	0.02%	3.08%	0.01%
NOVL UW Equity	NOVELL INC	0.02%	10.00%	0.00%	0.00%	0.00%
NVLS UW Equity	NOVELLUS SYSTEMS INC	0.02%	No Long-Term Growth		0.00%	0.00%
NRG UN Equity	NRG ENERGY INC	0.06%	2.51%	0.00%	0.18%	0.00%
NUE UN Equity	NUCOR CORP	0.13%	15.00%	0.02%	3.34%	0.00%
NVDA UW Equity	NVIDIA CORP	0.09%	15.40%	0.01%	0.00%	0.00%
NYX UN Equity	NYSE EURONEXT	0.06%	11.80%	0.01%	5.01%	0.00%
ORLY UW Equity	O'REILLY AUTOMOTIVE INC	0.05%	18.81%	0.01%	0.00%	0.00%
OXY UN Equity	OCCIDENTAL PETROLEUM CORP	0.65%	6.03%	0.04%	1.68%	0.01%
ODP UN Equity	OFFICE DEPOT INC	0.02%	11.40%	0.00%	0.00%	0.00%
OMC UN Equity	OMNICOM GROUP	0.11%	10.00%	0.01%	1.67%	0.00%
ORCL UW Equity	ORACLE CORP	1.17%	12.55%	0.15%	0.84%	0.01%
OI UN Equity	OWENS-ILLINOIS INC	0.05%	5.00%	0.00%	0.00%	0.00%
PCAR UW Equity	PACCAR INC	0.13%	11.00%	0.01%	1.26%	0.00%
PTV UN Equity	PACTIV CORPORATION	0.03%	12.15%	0.00%	0.00%	0.00%
PLL UN Equity	PALL CORP	0.04%	13.75%	0.01%	1.90%	0.00%
PH UN Equity	PARKER HANNIFIN CORP	0.09%	9.67%	0.01%	1.75%	0.00%
PDCO UW Equity	PATTERSON COS INC	0.04%	14.33%	0.01%	0.00%	0.00%
PAYX UW Equity	PAYCHEX INC	0.11%	12.08%	0.01%	4.23%	0.00%
BTU UN Equity	PEABODY ENERGY CORP	0.12%	9.50%	0.01%	0.64%	0.00%
PBCT UW Equity	PEOPLE'S UNITED FINANCIAL	0.05%	9.00%	0.00%	4.08%	0.00%
POM UN Equity	PEPCO HOLDINGS INC	0.04%	6.33%	0.00%	5.72%	0.00%
PBG UN Equity	PEPSI BOTTLING GROUP INC	0.08%	7.50%	0.01%	2.12%	0.00%
PEP UN Equity	PEPSICO INC	0.94%	9.94%	0.09%	3.11%	0.03%
PKI UN Equity	PERKINELMER INC	0.02%	9.83%	0.00%	1.34%	0.00%
PFE UN Equity	PFIZER INC	1.53%	3.42%	0.05%	4.09%	0.06%
PCG UN Equity	P G & E CORP	0.15%	7.36%	0.01%	4.19%	0.01%
PM UN Equity	PHILIP MORRIS INTERNATIONAL	0.89%	11.00%	0.10%	5.18%	0.05%
PNW UN Equity	PINNACLE WEST CAPITAL	0.04%	5.00%	0.00%	5.83%	0.00%
PXD UN Equity	PIONEER NATURAL RESOURCES CO	0.05%	No Long-Term Growth		0.66%	0.00%
PBI UN Equity	PITNEY BOWES INC	0.04%	No Long-Term Growth		6.73%	0.00%
PCL UN Equity	PLUM CREEK TIMBER CO	0.06%	6.80%	0.00%	4.39%	0.00%
PNC UN Equity	PNC FINANCIAL SERVICES GROUP	0.25%	7.33%	0.02%	0.73%	0.00%
RL UN Equity	POLO RALPH LAUREN CORP	0.05%	14.20%	0.01%	0.26%	0.00%
PPG UN Equity	PPG INDUSTRIES INC	0.10%	6.00%	0.01%	3.62%	0.00%
PPL UN Equity	PPL CORPORATION	0.11%	8.96%	0.01%	4.88%	0.01%
PX UN Equity	PRAXAIR INC	0.23%	10.57%	0.02%	2.26%	0.01%
PCP UN Equity	PRECISION CASTPARTS CORP	0.15%	14.75%	0.02%	0.11%	0.00%
PCLN UW Equity	PRICELINE.COM INC	0.09%	19.33%	0.02%	0.00%	0.00%
PFG UN Equity	PRINCIPAL FINANCIAL GROUP	0.08%	9.60%	0.01%	2.06%	0.00%
PG UN Equity	PROCTER & GAMBLE CO/THE	1.80%	9.00%	0.16%	2.85%	0.05%
PGN UN Equity	PROGRESS ENERGY INC	0.11%	3.86%	0.00%	6.37%	0.01%
PGR UN Equity	PROGRESSIVE CORP	0.11%	7.79%	0.01%	1.14%	0.00%
PLD UN Equity	PROLOGIS	0.06%	3.42%	0.00%	4.51%	0.00%
PRU UN Equity	PRUDENTIAL FINANCIAL INC	0.24%	11.87%	0.03%	1.50%	0.00%
PEG UN Equity	PUBLIC SERVICE ENTERPRISE GP	0.15%	4.33%	0.01%	4.55%	0.01%
PSA UN Equity	PUBLIC STORAGE	0.14%	4.01%	0.01%	2.76%	0.00%
PHM UN Equity	PULTE HOMES INC	0.04%	10.50%	0.00%	0.00%	0.00%
QLGC UW Equity	QLOGIC CORP	0.02%	11.20%	0.00%	0.00%	0.00%
QCOM UW Equity	QUALCOMM INC	0.65%	17.46%	0.11%	1.75%	0.01%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
PWR UN Equity	QUANTA SERVICES INC	0.04%	12.67%	0.00%	0.00%	0.00%
DGX UN Equity	QUEST DIAGNOSTICS	0.10%	12.23%	0.01%	0.73%	0.00%
STR UN Equity	QUESTAR CORP	0.07%	No Long-Term Growth		1.16%	0.00%
Q UN Equity	QWEST COMMUNICATIONS INTL	0.08%	1.26%	0.00%	7.22%	0.01%
RSH UN Equity	RADIOSHACK CORP	0.02%	8.64%	0.00%	1.32%	0.00%
RRC UN Equity	RANGE RESOURCES CORP	0.08%	1.50%	0.00%	0.25%	0.00%
RTN UN Equity	RAYTHEON COMPANY	0.21%	8.57%	0.02%	2.39%	0.00%
RHT UN Equity	RED HAT INC	0.05%	19.63%	0.01%	0.00%	0.00%
RF UN Equity	REGIONS FINANCIAL CORP	0.08%	1.50%	0.00%	0.61%	0.00%
RSG UN Equity	REPUBLIC SERVICES INC	0.10%	16.15%	0.02%	2.81%	0.00%
RAI UN Equity	REYNOLDS AMERICAN INC	0.15%	6.00%	0.01%	6.73%	0.01%
RHI UN Equity	ROBERT HALF INTL INC	0.04%	12.67%	0.01%	1.79%	0.00%
ROK UN Equity	ROCKWELL AUTOMATION INC	0.07%	12.98%	0.01%	2.30%	0.00%
COL UN Equity	ROCKWELL COLLINS INC.	0.09%	11.46%	0.01%	1.79%	0.00%
ROP UN Equity	ROPER INDUSTRIES INC	0.05%	14.00%	0.01%	0.67%	0.00%
ROST UW Equity	ROSS STORES INC	0.06%	13.63%	0.01%	1.03%	0.00%
RDC UN Equity	ROWAN COMPANIES INC	0.03%	15.50%	0.00%	0.34%	0.00%
RRD UW Equity	RR DONNELLEY & SONS CO	0.04%	No Long-Term Growth		0.00%	0.00%
R UN Equity	RYDER SYSTEM INC	0.02%	12.50%	0.00%	0.00%	0.00%
SWY UN Equity	SAFEWAY INC	0.09%	8.27%	0.01%	1.83%	0.00%
SAI UN Equity	SAIC INC	0.07%	12.28%	0.01%	0.00%	0.00%
CRM UN Equity	SALESFORCE.COM INC	0.08%	30.98%	0.02%	0.00%	0.00%
SNDK UW Equity	SANDISK CORP	0.06%	19.50%	0.01%	0.00%	0.00%
SLE UN Equity	SARA LEE CORP	0.09%	8.06%	0.01%	3.55%	0.00%
SCG UN Equity	SCANA CORP	0.04%	5.40%	0.00%	5.29%	0.00%
SLB UN Equity	SCHLUMBERGER LTD	0.78%	13.10%	0.10%	1.30%	0.01%
SCHW UW Equity	SCHWAB (CHARLES) CORP	0.21%	13.60%	0.03%	1.33%	0.00%
SNI UN Equity	SCRIPPS NETWORKS INTER-CL A	0.06%	14.57%	0.01%	0.59%	0.00%
SEE UN Equity	SEALED AIR CORP	0.03%	6.00%	0.00%	2.39%	0.00%
SHLD UW Equity	SEARS HOLDINGS CORP	0.11%	10.00%	0.01%	0.00%	0.00%
SRE UN Equity	SEMPRA ENERGY	0.13%	6.67%	0.01%	3.24%	0.00%
SHW UN Equity	SHERWIN-WILLIAMS CO/THE	0.07%	7.51%	0.01%	2.25%	0.00%
SIAL UW Equity	SIGMA-ALDRICH	0.06%	10.50%	0.01%	1.28%	0.00%
SPG UN Equity	SIMON PROPERTY GROUP INC	0.21%	5.31%	0.01%	3.32%	0.01%
SLM UN Equity	SLM CORP	0.05%	10.67%	0.01%	0.00%	0.00%
SII UN Equity	SMITH INTERNATIONAL INC	0.08%	12.67%	0.01%	1.48%	0.00%
SNA UN Equity	SNAP-ON INC	0.02%	15.00%	0.00%	0.00%	0.00%
SO UN Equity	SOUTHERN CO	0.25%	4.62%	0.01%	5.60%	0.01%
LUV UN Equity	SOUTHWEST AIRLINES CO	0.08%	11.00%	0.01%	0.09%	0.00%
SWN UN Equity	SOUTHWESTERN ENERGY CO	0.15%	40.50%	0.06%	0.00%	0.00%
SE UN Equity	SPECTRA ENERGY CORP	0.14%	7.00%	0.01%	4.61%	0.01%
S UN Equity	SPRINT NEXTEL CORP	0.10%	No Long-Term Growth		0.00%	0.00%
STJ UN Equity	ST JUDE MEDICAL INC	0.13%	13.15%	0.02%	0.00%	0.00%
SWK UN Equity	STANLEY WORKS/THE	0.04%	9.00%	0.00%	2.46%	0.00%
SPLS UW Equity	STAPLES INC	0.17%	14.33%	0.02%	1.45%	0.00%
SBUX UW Equity	STARBUCKS CORP	0.16%	17.11%	0.03%	0.00%	0.00%
HOT UN Equity	STARWOOD HOTELS & RESORTS	0.06%	10.00%	0.01%	0.62%	0.00%
STT UN Equity	STATE STREET CORP	0.22%	11.67%	0.03%	0.62%	0.00%
SRCL UW Equity	STERICYCLE INC	0.04%	16.75%	0.01%	0.00%	0.00%
SYK UN Equity	STRYKER CORP	0.21%	12.99%	0.03%	0.92%	0.00%
SUN UN Equity	SUNOCO INC	0.03%	5.00%	0.00%	1.83%	0.00%
STI UN Equity	SUNTRUST BANKS INC	0.12%	6.75%	0.01%	0.21%	0.00%
SVU UN Equity	SUPERVALU INC	0.03%	No Long-Term Growth		4.10%	0.00%
SYMC UW Equity	SYMANTEC CORP	0.14%	9.07%	0.01%	0.00%	0.00%
SYY UN Equity	SYSCO CORP	0.16%	10.50%	0.02%	3.57%	0.01%
TROW UW Equity	T ROWE PRICE GROUP INC	0.13%	9.57%	0.01%	2.06%	0.00%
TGT UN Equity	TARGET CORP	0.38%	14.70%	0.06%	1.38%	0.01%
TE UN Equity	TECO ENERGY INC	0.03%	8.33%	0.00%	5.17%	0.00%
TLAB UW Equity	TELLABS INC	0.03%	10.33%	0.00%	1.21%	0.00%
THC UN Equity	TENET HEALTHCARE CORP	0.03%	8.75%	0.00%	0.00%	0.00%
TDC UN Equity	TERADATA CORP	0.05%	13.33%	0.01%	0.00%	0.00%
TER UN Equity	TERADYNE INC	0.02%	19.80%	0.00%	0.00%	0.00%
TSO UN Equity	TESORO CORP	0.02%	No Long-Term Growth		1.54%	0.00%
TXN UN Equity	TEXAS INSTRUMENTS INC	0.29%	9.60%	0.03%	2.02%	0.01%
TXT UN Equity	TEXTRON INC	0.06%	31.14%	0.02%	0.39%	0.00%
TMO UN Equity	THERMO FISHER SCIENTIFIC INC	0.19%	10.47%	0.02%	0.00%	0.00%
TIF UN Equity	TIFFANY & CO	0.05%	10.69%	0.01%	1.70%	0.00%
TWC UN Equity	TIME WARNER CABLE	0.16%	13.50%	0.02%	3.05%	0.00%
TWX UN Equity	TIME WARNER INC	0.33%	13.05%	0.04%	2.69%	0.01%
TIE UN Equity	TITANIUM METALS CORP	0.02%	12.50%	0.00%	0.00%	0.00%
TJX UN Equity	TJX COMPANIES INC	0.16%	12.33%	0.02%	1.32%	0.00%
TMK UN Equity	TORCHMARK CORP	0.04%	8.00%	0.00%	1.52%	0.00%
TSS UN Equity	TOTAL SYSTEM SERVICES INC	0.03%	10.11%	0.00%	1.96%	0.00%
TRV UN Equity	TRAVELERS COS INC/THE	0.26%	7.74%	0.02%	2.61%	0.01%
TSN UN Equity	TYSON FOODS INC-CL A	0.04%	8.50%	0.00%	1.12%	0.00%
UNP UN Equity	UNION PACIFIC CORP	0.31%	12.68%	0.04%	1.76%	0.01%
UPS UN Equity	UNITED PARCEL SERVICE-CL B	0.41%	12.00%	0.05%	3.15%	0.01%
UTX UN Equity	UNITED TECHNOLOGIES CORP	0.63%	9.67%	0.06%	2.33%	0.01%
UNH UN Equity	UNITEDHEALTH GROUP INC	0.39%	11.26%	0.04%	0.04%	0.00%
UNM UN Equity	UNUM GROUP	0.07%	No Long-Term Growth		1.62%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
USB UN Equity	US BANCORP	0.47%	6.50%	0.03%	1.17%	0.01%
X UN Equity	UNITED STATES STEEL CORP	0.07%	7.50%	0.01%	0.42%	0.00%
VLO UN Equity	VALERO ENERGY CORP	0.11%	No Long-Term Growth		1.63%	0.00%
VAR UN Equity	VARIAN MEDICAL SYSTEMS INC	0.06%	13.60%	0.01%	0.00%	0.00%
VTR UN Equity	VENTAS INC	0.07%	4.48%	0.00%	4.82%	0.00%
VRSN UW Equity	VERISIGN INC	0.04%	No Long-Term Growth		0.00%	0.00%
VZ UN Equity	VERIZON COMMUNICATIONS INC	0.83%	4.57%	0.04%	6.45%	0.05%
VFC UN Equity	VF CORP	0.08%	11.00%	0.01%	3.24%	0.00%
VIA/B UN Equity	VIACOM INC-CLASS B	0.16%	8.93%	0.01%	0.00%	0.00%
V UN Equity	VISA INC-CLASS A SHARES	0.39%	20.22%	0.08%	0.58%	0.00%
VNO UN Equity	VORNADO REALTY TRUST	0.12%	7.84%	0.01%	3.89%	0.00%
VMC UN Equity	VULCAN MATERIALS CO	0.06%	24.90%	0.01%	2.18%	0.00%
WMT UN Equity	WAL-MART STORES INC	2.01%	10.92%	0.22%	2.19%	0.04%
WAG UN Equity	WALGREEN CO	0.36%	14.44%	0.05%	1.51%	0.01%
DIS UN Equity	WALT DISNEY CO/THE	0.57%	9.82%	0.06%	1.10%	0.01%
WPO UN Equity	WASHINGTON POST-CLASS B	0.04%	No Long-Term Growth		0.00%	0.00%
WM UN Equity	WASTE MANAGEMENT INC	0.16%	10.37%	0.02%	3.73%	0.01%
WAT UN Equity	WATERS CORP	0.05%	15.37%	0.01%	0.00%	0.00%
WPI UN Equity	WATSON PHARMACEUTICALS INC	0.05%	9.39%	0.00%	0.00%	0.00%
WLP UN Equity	WELLPOINT INC	0.29%	12.14%	0.04%	0.00%	0.00%
WFC UN Equity	WELLS FARGO & CO	1.47%	11.00%	0.16%	0.72%	0.01%
WDC UN Equity	WESTERN DIGITAL CORP	0.09%	8.00%	0.01%	0.00%	0.00%
WU UN Equity	WESTERN UNION CO	0.13%	12.92%	0.02%	0.98%	0.00%
WY UN Equity	WEYERHAEUSER CO	0.09%	4.00%	0.00%	0.47%	0.00%
WHR UN Equity	WHIRLPOOL CORP	0.06%	15.00%	0.01%	2.10%	0.00%
WFMI UW Equity	WHOLE FOODS MARKET INC	0.05%	16.67%	0.01%	0.00%	0.00%
WMB UN Equity	WILLIAMS COS INC	0.13%	12.50%	0.02%	2.04%	0.00%
WIN UW Equity	WINDSTREAM CORP	0.04%	0.29%	0.00%	9.49%	0.00%
WEC UN Equity	WISCONSIN ENERGY CORP	0.06%	8.90%	0.01%	3.14%	0.00%
GWW UN Equity	WW GRAINGER INC	0.07%	13.35%	0.01%	1.86%	0.00%
WYN UN Equity	WYNDHAM WORLDWIDE CORP	0.04%	No Long-Term Growth		0.73%	0.00%
WYNN UW Equity	WYNN RESORTS LTD	0.08%	No Long-Term Growth		0.00%	0.00%
XEL UN Equity	XCEL ENERGY INC	0.10%	5.41%	0.01%	4.78%	0.00%
XRX UN Equity	XEROX CORP	0.08%	7.00%	0.01%	1.86%	0.00%
XLNX UW Equity	XILINX INC	0.07%	16.67%	0.01%	2.48%	0.00%
XL UN Equity	XL CAPITAL LTD -CLASS A	0.06%	No Long-Term Growth		2.33%	0.00%
XTO UN Equity	XTO ENERGY INC	0.27%	14.00%	0.04%	1.08%	0.00%
YHOO UW Equity	YAHOO! INC	0.21%	15.52%	0.03%	0.00%	0.00%
YUM UN Equity	YUM! BRANDS INC	0.17%	11.54%	0.02%	2.50%	0.00%
ZMH UN Equity	ZIMMER HOLDINGS INC	0.12%	9.83%	0.01%	0.00%	0.00%
ZION UW Equity	ZIONS BANCORPORATION	0.03%	8.20%	0.00%	0.24%	0.00%

CAPM UTILIZING ALTERNATIVE MARKET RISK PREMIUM CALCULATION

Long-Term Projected 30-Year Treasury Yield (2011-2020)	5.75%
Projected 30-Year Treasury Yield (2010-2011)	4.88%
Ex-Ante Approach Derived Market Risk Premium	7.38%
Average Market Risk Premium	7.38%
Proxy Group Beta- Average of Value Line and Bloomberg Betas	0.69

CAPM Result	
Long-Term Projected 30-Year Treasury Yield (2011-2020)	10.85%
Projected 30-Year Treasury Yield (2010-2011)	9.98%
Average	10.41%

ESTIMATION OF MARKET RISK PREMIUM

Estimated Weighted Index Dividend Yield	Weighted Index Long-Term Growth Rate	S&P 500 Estimated Required Market Return
1.97%	10.19%	12.26%

Percent of Index Capitalization Represented by Estimate: 96.50%

Projected 30-Year Treasury Yield (2010 - Q4 2011)	4.88%
Implied Market Risk Premium	7.38%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
MMM UN Equity	3M CO	0.56%	10.86%	0.06%	2.65%	0.01%
ABT UN Equity	ABBOTT LABORATORIES	0.83%	10.98%	0.09%	3.20%	0.03%
ANF UN Equity	ABERCROMBIE & FITCH CO-CL A	0.03%	15.39%	0.00%	2.19%	0.00%
ADBE UW Equity	ADOBE SYSTEMS INC	0.17%	13.31%	0.02%	0.00%	0.00%
AMD UN Equity	ADVANCED MICRO DEVICES	0.05%	11.67%	0.01%	1.59%	0.00%
AES UN Equity	AES CORP	0.09%	7.50%	0.01%	0.00%	0.00%
AET UN Equity	AETNA INC	0.13%	11.00%	0.01%	0.09%	0.00%
ACS UN Equity	AFFILIATED COMPUTER SVCS-A	0.06%	10.00%	0.01%	0.00%	0.00%
AFL UN Equity	AFLAC INC	0.23%	No Long-Term Growth		2.32%	0.00%
A UN Equity	AGILENT TECHNOLOGIES INC	0.10%	15.00%	0.02%	0.00%	0.00%
APD UN Equity	AIR PRODUCTS & CHEMICALS INC	0.16%	10.45%	0.02%	2.40%	0.00%
ARG UN Equity	AIRGAS INC	0.04%	11.44%	0.00%	1.63%	0.00%
AKS UN Equity	AK STEEL HOLDING CORP	0.02%	10.00%	0.00%	0.83%	0.00%
AKAM UW Equity	AKAMAI TECHNOLOGIES	0.04%	14.11%	0.01%	0.00%	0.00%
AA UN Equity	ALCOA INC	0.13%	9.00%	0.01%	1.02%	0.00%
AYE UN Equity	ALLEGHENY ENERGY INC	0.03%	6.00%	0.00%	2.99%	0.00%
ATI UN Equity	ALLEGHENY TECHNOLOGIES INC	0.04%	15.00%	0.01%	1.61%	0.00%
AGN UN Equity	ALLERGAN INC	0.17%	13.30%	0.02%	0.44%	0.00%
ALL UN Equity	ALLSTATE CORP	0.16%	8.00%	0.01%	2.62%	0.00%
ALTR UW Equity	ALTERA CORPORATION	0.06%	19.33%	0.01%	0.96%	0.00%
MO UN Equity	ALTRIA GROUP INC	0.41%	7.50%	0.03%	7.18%	0.03%
AMZN UW Equity	AMAZON.COM INC	0.52%	27.01%	0.14%	0.00%	0.00%
AEE UN Equity	AMEREN CORPORATION	0.06%	4.00%	0.00%	6.00%	0.00%
AEP UN Equity	AMERICAN ELECTRIC POWER	0.16%	4.67%	0.01%	4.79%	0.01%
AXP UN Equity	AMERICAN EXPRESS CO	0.46%	10.71%	0.05%	1.85%	0.01%
AIG UN Equity	AMERICAN INTERNATIONAL GROUP	0.16%	6.00%	0.01%	8.47%	0.01%
AMT UN Equity	AMERICAN TOWER CORP-CL A	0.17%	20.60%	0.04%	0.00%	0.00%
AMP UN Equity	AMERIPRISE FINANCIAL INC	0.10%	15.60%	0.02%	1.64%	0.00%
ABC UN Equity	AMERISOURCEBERGEN CORP	0.08%	12.88%	0.01%	0.94%	0.00%
AMGN UW Equity	AMGEN INC	0.58%	8.95%	0.05%	0.00%	0.00%
APH UN Equity	AMPHENOL CORP-CL A	0.07%	17.50%	0.01%	0.15%	0.00%
APC UN Equity	ANADARKO PETROLEUM CORP	0.32%	7.12%	0.02%	0.55%	0.00%
ADI UN Equity	ANALOG DEVICES INC	0.08%	10.67%	0.01%	2.90%	0.00%
AON UN Equity	AON CORP	0.11%	5.75%	0.01%	1.56%	0.00%
APA UN Equity	APACHE CORP	0.35%	8.45%	0.03%	0.59%	0.00%
AIV UN Equity	APARTMENT INVT & MGMT CO -A	0.02%	7.55%	0.00%	2.53%	0.00%
APOL UW Equity	APOLLO GROUP INC-CL A	0.09%	16.62%	0.02%	0.00%	0.00%
AAPL UW Equity	APPLE INC	1.75%	19.05%	0.33%	0.00%	0.00%
AMAT UW Equity	APPLIED MATERIALS INC	0.17%	10.50%	0.02%	1.87%	0.00%
ADM UN Equity	ARCHER-DANIELS-MIDLAND CO	0.20%	10.00%	0.02%	1.79%	0.00%
AIZ UN Equity	ASSURANT INC	0.04%	10.00%	0.00%	1.89%	0.00%
T UN Equity	AT&T INC	1.49%	5.56%	0.08%	6.55%	0.10%
ADSK UW Equity	AUTODESK INC	0.05%	12.87%	0.01%	0.00%	0.00%
ADP UW Equity	AUTOMATIC DATA PROCESSING	0.20%	10.09%	0.02%	3.26%	0.01%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
AN UN Equity	AUTONATION INC	0.03%	12.00%	0.00%	0.00%	0.00%
AZO UN Equity	AUTOZONE INC	0.08%	12.70%	0.01%	0.00%	0.00%
AVB UN Equity	AVALONBAY COMMUNITIES INC	0.06%	6.61%	0.00%	4.49%	0.00%
AVY UN Equity	AVERY DENNISON CORP	0.04%	7.00%	0.00%	2.39%	0.00%
AVP UN Equity	AVON PRODUCTS INC	0.14%	13.00%	0.02%	2.74%	0.00%
BHI UN Equity	BAKER HUGHES INC	0.14%	8.50%	0.01%	1.25%	0.00%
BLL UN Equity	BALL CORP	0.05%	7.70%	0.00%	0.77%	0.00%
BK UN Equity	BANK OF NEW YORK MELLON CORP	0.35%	11.08%	0.04%	1.62%	0.01%
BAC UN Equity	BANK OF AMERICA CORP	1.33%	6.50%	0.09%	0.33%	0.00%
BAX UN Equity	BAXTER INTERNATIONAL INC	0.35%	12.00%	0.04%	1.96%	0.01%
BBT UN Equity	BB&T CORP	0.19%	6.75%	0.01%	2.28%	0.00%
BDX UN Equity	BECTON DICKINSON AND CO	0.18%	11.50%	0.02%	1.87%	0.00%
BBBY UW Equity	BED BATH & BEYOND INC	0.10%	13.32%	0.01%	0.00%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
BMS UN Equity	BEMIS COMPANY	0.03%	9.25%	0.00%	3.29%	0.00%
BBY UN Equity	BEST BUY CO INC	0.15%	13.63%	0.02%	1.50%	0.00%
BIG UN Equity	BIG LOTS INC	0.02%	14.50%	0.00%	0.00%	0.00%
BIIB UW Equity	BIOGEN IDEC INC	0.16%	8.68%	0.01%	0.00%	0.00%
BJS UN Equity	BJ SERVICES CO	0.06%	5.00%	0.00%	0.93%	0.00%
BDK UN Equity	BLACK & DECKER CORP	0.04%	4.50%	0.00%	0.70%	0.00%
BMC UW Equity	BMC SOFTWARE INC	0.07%	15.55%	0.01%	0.00%	0.00%
BA UN Equity	BOEING CO	0.44%	13.60%	0.06%	2.75%	0.01%
BXP UN Equity	BOSTON PROPERTIES INC	0.09%	4.65%	0.00%	2.95%	0.00%
BSX UN Equity	BOSTON SCIENTIFIC CORP	0.12%	12.32%	0.02%	0.00%	0.00%
BMY UN Equity	BRISTOL-MYERS SQUIBB CO	0.42%	4.00%	0.02%	5.12%	0.02%
BRCM UW Equity	BROADCOM CORP-CL A	0.12%	14.83%	0.02%	0.00%	0.00%
BF/B UN Equity	BROWN-FORMAN CORP-CLASS B	0.05%	13.00%	0.01%	2.33%	0.00%
BNI UN Equity	BURLINGTON NORTHERN SANTA FE	0.33%	10.37%	0.03%	1.67%	0.01%
CA UW Equity	CA INC	0.11%	13.67%	0.02%	0.72%	0.00%
COG UN Equity	CABOT OIL & GAS CORP	0.04%	No Long-Term Growth		0.24%	0.00%
CAM UN Equity	CAMERON INTERNATIONAL CORP	0.10%	No Long-Term Growth		0.00%	0.00%
CPB UN Equity	CAMPBELL SOUP CO	0.11%	8.03%	0.01%	3.23%	0.00%
COF UN Equity	CAPITAL ONE FINANCIAL CORP	0.17%	10.08%	0.02%	0.67%	0.00%
CAH UN Equity	CARDINAL HEALTH INC	0.12%	11.63%	0.01%	1.96%	0.00%
CFN UN Equity	CAREFUSION CORP	0.06%	10.28%	0.01%	0.00%	0.00%
CCL UN Equity	CARNIVAL CORP	0.21%	11.04%	0.02%	1.04%	0.00%
CAT UN Equity	CATERPILLAR INC	0.33%	12.60%	0.04%	3.13%	0.01%
CBG UN Equity	CB RICHARD ELLIS GROUP INC-A	0.04%	13.33%	0.01%	0.00%	0.00%
CBS UN Equity	CBS CORP-CLASS B NON VOTING	0.08%	2.80%	0.00%	1.52%	0.00%
CELG UW Equity	CELGENE CORP	0.26%	24.10%	0.06%	0.00%	0.00%
CNP UN Equity	CENTERPOINT ENERGY INC	0.06%	2.00%	0.00%	5.46%	0.00%
CTL UN Equity	CENTURYTEL INC	0.10%	2.24%	0.00%	8.20%	0.01%
CEPH UW Equity	CEPHALON INC	0.05%	11.83%	0.01%	0.00%	0.00%
CF UN Equity	CF INDUSTRIES HOLDINGS INC	0.05%	3.50%	0.00%	1.49%	0.00%
CHRW UW Equity	C.H. ROBINSON WORLDWIDE INC	0.09%	No Long-Term Growth		1.76%	0.00%
CHK UN Equity	CHESAPEAKE ENERGY CORP	0.17%	8.80%	0.01%	1.17%	0.00%
CVX UN Equity	CHEVRON CORP	1.47%	18.70%	0.28%	3.78%	0.06%
CB UN Equity	CHUBB CORP	0.17%	8.20%	0.01%	2.96%	0.00%
CI UN Equity	CIGNA CORP	0.09%	8.66%	0.01%	0.05%	0.00%
CINF UW Equity	CINCINNATI FINANCIAL CORP	0.04%	No Long-Term Growth		6.08%	0.00%
CTAS UW Equity	CINTAS CORP	0.04%	9.75%	0.00%	1.90%	0.00%
CSCO UW Equity	CISCO SYSTEMS INC	1.30%	11.70%	0.15%	0.00%	0.00%
C UN Equity	CITIGROUP INC	0.96%	1.50%	0.01%	0.23%	0.00%
CTXS UW Equity	CITRIX SYSTEMS INC	0.08%	11.77%	0.01%	0.00%	0.00%
CLF UN Equity	CLIFFS NATURAL RESOURCES INC	0.06%	18.00%	0.01%	0.64%	0.00%
CLX UN Equity	CLOROX COMPANY	0.08%	9.50%	0.01%	3.23%	0.00%
CME UW Equity	CME GROUP INC	0.19%	9.48%	0.02%	1.60%	0.00%
CMS UN Equity	CMS ENERGY CORP	0.04%	5.80%	0.00%	3.90%	0.00%
COH UN Equity	COACH INC	0.11%	14.67%	0.02%	0.84%	0.00%
KO UN Equity	COCA-COLA CO/THE	1.26%	8.87%	0.11%	3.24%	0.04%
CCE UN Equity	COCA-COLA ENTERPRISES	0.10%	9.33%	0.01%	1.61%	0.00%
CTSH UW Equity	COGNIZANT TECH SOLUTIONS-A	0.13%	17.79%	0.02%	0.00%	0.00%
CL UN Equity	COLGATE-PALMOLIVE CO	0.40%	9.75%	0.04%	2.34%	0.01%
CMCSA UW Equity	COMCAST CORP-CLASS A	0.33%	13.54%	0.04%	2.33%	0.01%
CMA UN Equity	COMERICA INC	0.05%	4.94%	0.00%	0.57%	0.00%
CSC UN Equity	COMPUTER SCIENCES CORP	0.08%	8.58%	0.01%	0.00%	0.00%
CPWR UW Equity	COMPUWARE CORP	0.02%	No Long-Term Growth		0.00%	0.00%
CAG UN Equity	CONAGRA FOODS INC	0.10%	10.13%	0.01%	3.45%	0.00%
COP UN Equity	CONOCOPHILLIPS	0.73%	No Long-Term Growth		3.99%	0.00%
ED UN Equity	CONSOLIDATED EDISON INC	0.12%	4.26%	0.01%	5.41%	0.01%
CNX UN Equity	CONSOL ENERGY INC	0.09%	9.50%	0.01%	0.81%	0.00%
CEG UN Equity	CONSTELLATION ENERGY GROUP	0.07%	5.00%	0.00%	2.92%	0.00%
STZ UN Equity	CONSTELLATION BRANDS INC-A	0.03%	10.00%	0.00%	0.00%	0.00%
GLW UN Equity	CORNING INC	0.29%	12.83%	0.04%	1.07%	0.00%
COST UW Equity	COSTCO WHOLESALE CORP	0.25%	12.37%	0.03%	1.28%	0.00%
CVH UN Equity	COVENTRY HEALTH CARE INC	0.03%	6.60%	0.00%	0.00%	0.00%
BCR UN Equity	CR BARD INC	0.08%	12.60%	0.01%	0.84%	0.00%
CSX UN Equity	CSX CORP	0.17%	9.78%	0.02%	2.06%	0.00%
CMI UN Equity	CUMMINS INC	0.10%	8.50%	0.01%	1.40%	0.00%
CVS UN Equity	CVS CAREMARK CORP	0.46%	14.56%	0.07%	1.00%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
DHR UN Equity	DANAHER CORP	0.23%	13.04%	0.03%	0.20%	0.00%
DRI UN Equity	DARDEN RESTAURANTS INC	0.05%	11.85%	0.01%	2.61%	0.00%
DVA UN Equity	DAVITA INC	0.06%	12.06%	0.01%	0.00%	0.00%
DF UN Equity	DEAN FOODS CO	0.03%	12.18%	0.00%	0.00%	0.00%
DE UN Equity	DEERE & CO	0.22%	8.75%	0.02%	2.11%	0.00%
DELL UW Equity	DELL INC	0.26%	9.29%	0.02%	0.00%	0.00%
DNR UN Equity	DENBURY RESOURCES INC	0.04%	5.30%	0.00%	0.00%	0.00%
XRAY UW Equity	DENTSPLY INTERNATIONAL INC	0.05%	11.50%	0.01%	0.64%	0.00%
DVN UN Equity	DEVON ENERGY CORPORATION	0.31%	4.19%	0.01%	0.91%	0.00%
DV UN Equity	DEVRY INC	0.04%	20.41%	0.01%	0.28%	0.00%
DO UN Equity	DIAMOND OFFSHORE DRILLING	0.13%	No Long-Term Growth		7.74%	0.00%
DTV UW Equity	DIRECTV-CLASS A	0.30%	20.26%	0.06%	0.00%	0.00%
DFS UN Equity	DISCOVER FINANCIAL SERVICES	0.07%	7.67%	0.01%	0.58%	0.00%
D UN Equity	DOMINION RESOURCES INC/VA	0.22%	4.00%	0.01%	4.74%	0.01%
DOV UN Equity	DOVER CORP	0.08%	14.00%	0.01%	2.43%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
DOW UN Equity	DOW CHEMICAL	0.31%	7.50%	0.02%	3.22%	0.01%
DHI UN Equity	DR HORTON INC	0.04%	7.67%	0.00%	1.14%	0.00%
DPS UN Equity	DR PEPPER SNAPPLE GROUP INC	0.07%	9.50%	0.01%	1.71%	0.00%
DTE UN Equity	DTE ENERGY COMPANY	0.07%	4.50%	0.00%	5.00%	0.00%
DD UN Equity	DU PONT (E.I.) DE NEMOURS	0.30%	8.25%	0.02%	4.88%	0.01%
DUK UN Equity	DUKE ENERGY CORP	0.22%	4.40%	0.01%	5.85%	0.01%
DNB UN Equity	DUN & BRADSTREET CORP	0.04%	No Long-Term Growth		0.00%	0.00%
ETFC UW Equity	E*TRADE FINANCIAL CORP	0.03%	No Long-Term Growth		0.00%	0.00%
EMN UN Equity	EASTMAN CHEMICAL COMPANY	0.04%	11.50%	0.00%	2.97%	0.00%
EK UN Equity	EASTMAN KODAK CO	0.02%	10.00%	0.00%	0.00%	0.00%
ETN UN Equity	EATON CORP	0.11%	9.75%	0.01%	3.12%	0.00%
EBAY UW Equity	EBAY INC	0.29%	11.58%	0.03%	0.00%	0.00%
ECL UN Equity	ECOLAB INC	0.10%	12.06%	0.01%	1.29%	0.00%
EIX UN Equity	EDISON INTERNATIONAL	0.11%	4.26%	0.00%	3.84%	0.00%
EP UN Equity	EL PASO CORP	0.07%	8.00%	0.01%	0.38%	0.00%
ERTS UW Equity	ELECTRONIC ARTS INC	0.05%	14.23%	0.01%	0.00%	0.00%
LLY UN Equity	ELI LILLY & CO	0.40%	No Long-Term Growth		5.44%	0.00%
EMC UN Equity	EMC CORP/MASS	0.34%	14.25%	0.05%	0.00%	0.00%
EMR UN Equity	EMERSON ELECTRIC CO	0.35%	11.94%	0.04%	2.92%	0.01%
ETR UN Equity	ENTERGY CORP	0.15%	4.33%	0.01%	3.95%	0.01%
EOG UN Equity	EOG RESOURCES INC	0.24%	10.67%	0.03%	0.58%	0.00%
EQT UN Equity	EQT CORP	0.06%	16.00%	0.01%	2.01%	0.00%
EFX UN Equity	EQUIFAX INC	0.04%	9.50%	0.00%	0.00%	0.00%
EQR UN Equity	EQUITY RESIDENTIAL	0.09%	3.14%	0.00%	4.09%	0.00%
EL UN Equity	ESTEE LAUDER COMPANIES-CL A	0.07%	13.42%	0.01%	1.01%	0.00%
EXC UN Equity	EXELON CORP	0.30%	1.18%	0.00%	4.60%	0.01%
EXPE UW Equity	EXPEDIA INC	0.06%	14.00%	0.01%	0.00%	0.00%
EXPD UW Equity	EXPEDITORS INTL WASH INC	0.07%	16.75%	0.01%	1.21%	0.00%
ESRX UW Equity	EXPRESS SCRIPTS INC	0.24%	19.49%	0.05%	0.00%	0.00%
XOM UN Equity	EXXON MOBIL CORP	3.13%	4.24%	0.13%	2.64%	0.08%
FDO UN Equity	FAMILY DOLLAR STORES	0.04%	12.51%	0.01%	1.82%	0.00%
FAST UW Equity	FASTENAL CO	0.06%	16.00%	0.01%	1.84%	0.00%
FII UN Equity	FEDERATED INVESTORS INC-CL B	0.03%	8.40%	0.00%	5.50%	0.00%
FDX UN Equity	FEDEX CORP	0.25%	12.00%	0.03%	0.54%	0.00%
FIS UN Equity	FIDELITY NATIONAL INFORMATIO	0.09%	13.86%	0.01%	0.84%	0.00%
FITB UW Equity	FIFTH THIRD BANCORP	0.10%	3.17%	0.00%	0.32%	0.00%
FHN UN Equity	FIRST HORIZON NATIONAL CORP	0.03%	4.33%	0.00%	0.04%	0.00%
FSLR UW Equity	FIRST SOLAR INC	0.10%	29.92%	0.03%	0.00%	0.00%
FE UN Equity	FIRSTENERGY CORP	0.13%	3.00%	0.00%	5.08%	0.01%
FISV UW Equity	FISERV INC	0.07%	No Long-Term Growth		0.00%	0.00%
FLIR UW Equity	FLIR SYSTEMS INC	0.04%	15.85%	0.01%	0.00%	0.00%
FLS UN Equity	FLOWSERVE CORP	0.05%	No Long-Term Growth		1.14%	0.00%
FLR UN Equity	FLUOR CORP	0.08%	36.00%	0.03%	1.22%	0.00%
FMC UN Equity	FMC CORP	0.04%	7.45%	0.00%	0.89%	0.00%
FTI UN Equity	FMC TECHNOLOGIES INC	0.07%	25.50%	0.02%	0.00%	0.00%
F UN Equity	FORD MOTOR CO	0.36%	10.00%	0.04%	0.00%	0.00%
FRX UN Equity	FOREST LABORATORIES INC	0.09%	5.75%	0.01%	0.00%	0.00%
FO UN Equity	FORTUNE BRANDS INC	0.06%	10.67%	0.01%	1.80%	0.00%
FPL UN Equity	FPL GROUP INC	0.20%	6.95%	0.01%	4.00%	0.01%
BEN UN Equity	FRANKLIN RESOURCES INC	0.23%	9.86%	0.02%	3.49%	0.01%
FCX UN Equity	FREEPORT-MCMORAN COPPER	0.31%	10.00%	0.03%	0.98%	0.00%
FTR UN Equity	FRONTIER COMMUNICATIONS CORP	0.02%	3.50%	0.00%	12.95%	0.00%
GME UN Equity	GAMESTOP CORP-CLASS A	0.03%	14.33%	0.00%	0.00%	0.00%
GCI UN Equity	GANNETT CO	0.04%	3.33%	0.00%	1.06%	0.00%
GPS UN Equity	GAP INC/THE	0.13%	11.33%	0.01%	1.80%	0.00%
GD UN Equity	GENERAL DYNAMICS CORP	0.27%	7.23%	0.02%	2.26%	0.01%
GE UN Equity	GENERAL ELECTRIC CO	1.77%	9.87%	0.17%	2.39%	0.04%
GIS UN Equity	GENERAL MILLS INC	0.23%	9.45%	0.02%	2.68%	0.01%
GPC UN Equity	GENUINE PARTS CO	0.06%	7.90%	0.00%	4.18%	0.00%
GNW UN Equity	GENWORTH FINANCIAL INC-CL A	0.07%	10.00%	0.01%	0.00%	0.00%
GENZ UW Equity	GENZYME CORP	0.15%	20.39%	0.03%	0.00%	0.00%
GILD UW Equity	GILEAD SCIENCES INC	0.43%	14.70%	0.06%	0.00%	0.00%
GS UN Equity	GOLDMAN SACHS GROUP INC	0.79%	9.77%	0.08%	0.91%	0.01%
GR UN Equity	GOODRICH CORP	0.08%	7.55%	0.01%	1.65%	0.00%
GT UN Equity	GOODYEAR TIRE & RUBBER CO	0.03%	12.00%	0.00%	0.00%	0.00%
GOOG UW Equity	GOOGLE INC-CL A	1.27%	25.00%	0.32%	0.00%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
HRB UN Equity	H&R BLOCK INC	0.07%	12.00%	0.01%	2.76%	0.00%
HAL UN Equity	HALLIBURTON CO	0.27%	10.00%	0.03%	1.17%	0.00%
HOG UN Equity	HARLEY-DAVIDSON INC	0.05%	9.33%	0.01%	1.75%	0.00%
HAR UN Equity	HARMAN INTERNATIONAL	0.03%	12.00%	0.00%	0.07%	0.00%
HRS UN Equity	HARRIS CORP	0.06%	11.33%	0.01%	1.40%	0.00%
HIG UN Equity	HARTFORD FINANCIAL SVCS GRP	0.10%	12.88%	0.01%	0.71%	0.00%
HAS UN Equity	HASBRO INC	0.04%	10.00%	0.00%	2.74%	0.00%
HCP UN Equity	HCP INC	0.09%	7.08%	0.01%	6.32%	0.01%
HCN UN Equity	HEALTH CARE REIT INC	0.05%	4.66%	0.00%	6.31%	0.00%
HSY UN Equity	HERSHEY CO/THE	0.06%	6.95%	0.00%	3.45%	0.00%
HES UN Equity	HESS CORP	0.20%	1.64%	0.00%	0.65%	0.00%
HPQ UN Equity	HEWLETT-PACKARD CO	1.13%	11.80%	0.13%	0.66%	0.01%
HNZ UN Equity	HJ HEINZ CO	0.14%	7.45%	0.01%	3.78%	0.01%
HD UN Equity	HOME DEPOT INC	0.49%	9.77%	0.05%	3.12%	0.02%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
HON UN Equity	HONEYWELL INTERNATIONAL INC	0.30%	7.84%	0.02%	3.10%	0.01%
HRL UN Equity	HORMEL FOODS CORP	0.05%	11.00%	0.01%	2.13%	0.00%
HSP UN Equity	HOSPIRA INC	0.08%	13.59%	0.01%	0.00%	0.00%
HST UN Equity	HOST HOTELS & RESORTS INC	0.07%	No Long-Term Growth		1.23%	0.00%
HCBK UW Equity	HUDSON CITY BANCORP INC	0.07%	21.33%	0.01%	4.66%	0.00%
HUM UN Equity	HUMANA INC	0.08%	10.11%	0.01%	0.00%	0.00%
HBAN UW Equity	HUNTINGTON BANCSHARES INC	0.03%	No Long-Term Growth		0.81%	0.00%
IBM UN Equity	INTL BUSINESS MACHINES CORP	1.62%	9.72%	0.16%	1.79%	0.03%
ITW UN Equity	ILLINOIS TOOL WORKS	0.22%	12.20%	0.03%	2.95%	0.01%
RX UN Equity	IMS HEALTH INC	0.04%	8.00%	0.00%	0.53%	0.00%
TEG UN Equity	INTEGRYS ENERGY GROUP INC	0.03%	1.50%	0.00%	6.38%	0.00%
INTC UW Equity	INTEL CORP	1.08%	10.63%	0.12%	3.05%	0.03%
ICE UN Equity	INTERCONTINENTALEXCHANGE INC	0.07%	14.85%	0.01%	0.00%	0.00%
IPG UN Equity	INTERPUBLIC GROUP OF COS INC	0.03%	11.00%	0.00%	0.00%	0.00%
IFF UN Equity	INTL FLAVORS & FRAGRANCES	0.03%	6.00%	0.00%	2.48%	0.00%
IGT UN Equity	INTL GAME TECHNOLOGY	0.06%	14.71%	0.01%	1.26%	0.00%
IP UN Equity	INTERNATIONAL PAPER CO	0.10%	3.67%	0.00%	0.42%	0.00%
INTU UW Equity	INTUIT INC	0.09%	14.62%	0.01%	0.00%	0.00%
ISRG UW Equity	INTUITIVE SURGICAL INC	0.13%	21.63%	0.03%	0.00%	0.00%
IVZ UN Equity	INVESCO LTD	0.09%	11.50%	0.01%	2.19%	0.00%
IRM UN Equity	IRON MOUNTAIN INC	0.05%	18.00%	0.01%	0.00%	0.00%
ITT UN Equity	ITT CORP	0.09%	9.00%	0.01%	1.79%	0.00%
JCP UN Equity	J.C. PENNEY CO INC	0.06%	11.75%	0.01%	3.19%	0.00%
JBL UN Equity	JABIL CIRCUIT INC	0.03%	15.00%	0.00%	1.81%	0.00%
JEC UN Equity	JACOBS ENGINEERING GROUP INC	0.05%	13.50%	0.01%	0.00%	0.00%
JNS UN Equity	JANUS CAPITAL GROUP INC	0.02%	8.40%	0.00%	0.33%	0.00%
JDSU UW Equity	JDS UNIPHASE CORP	0.02%	12.80%	0.00%	0.00%	0.00%
SJM UN Equity	JM SMUCKER CO/THE	0.07%	8.17%	0.01%	2.29%	0.00%
JCI UN Equity	JOHNSON CONTROLS INC	0.19%	17.33%	0.03%	1.80%	0.00%
JNJ UN Equity	JOHNSON & JOHNSON	1.74%	7.38%	0.13%	3.25%	0.06%
JPM UN Equity	JPMORGAN CHASE & CO	1.57%	8.50%	0.13%	1.31%	0.02%
JNPR UN Equity	JUNIPER NETWORKS INC	0.13%	17.30%	0.02%	0.00%	0.00%
K UN Equity	KELLOGG CO	0.21%	9.18%	0.02%	2.80%	0.01%
KEY UN Equity	KEYCORP	0.07%	4.00%	0.00%	0.53%	0.00%
KMB UN Equity	KIMBERLY-CLARK CORP	0.25%	9.21%	0.02%	4.23%	0.01%
KIM UN Equity	KIMCO REALTY CORP	0.05%	2.43%	0.00%	5.32%	0.00%
KG UN Equity	KING PHARMACEUTICALS INC	0.03%	7.70%	0.00%	0.00%	0.00%
KLAC UW Equity	KLA-TENCOR CORPORATION	0.05%	4.50%	0.00%	1.96%	0.00%
KSS UN Equity	KOHLS CORP	0.16%	13.36%	0.02%	0.00%	0.00%
KFT UN Equity	KRAFT FOODS INC-CLASS A	0.42%	8.33%	0.03%	4.37%	0.02%
KR UN Equity	KROGER CO	0.14%	8.94%	0.01%	1.79%	0.00%
LLL UN Equity	L-3 COMMUNICATIONS HOLDINGS	0.10%	10.46%	0.01%	1.67%	0.00%
LH UN Equity	LABORATORY CRP OF AMER HLDGS	0.08%	12.90%	0.01%	0.00%	0.00%
LM UN Equity	LEGG MASON INC	0.04%	7.62%	0.00%	0.45%	0.00%
LEG UN Equity	LEGGETT & PLATT INC	0.03%	15.00%	0.00%	5.39%	0.00%
LEN UN Equity	LENNAR CORP-CL A	0.03%	10.50%	0.00%	0.96%	0.00%
LUK UN Equity	LEUCADIA NATIONAL CORP	0.06%	No Long-Term Growth		0.00%	0.00%
LXK UN Equity	LEXMARK INTERNATIONAL INC-A	0.02%	No Long-Term Growth		0.00%	0.00%
LIFE UW Equity	LIFE TECHNOLOGIES CORP	0.09%	10.10%	0.01%	0.00%	0.00%
LNC UN Equity	LINCOLN NATIONAL CORP	0.08%	8.66%	0.01%	0.15%	0.00%
LLTC UW Equity	LINEAR TECHNOLOGY CORP	0.06%	12.17%	0.01%	3.33%	0.00%
LMT UN Equity	LOCKHEED MARTIN CORP	0.29%	7.80%	0.02%	3.31%	0.01%
L UN Equity	LOEWS CORP	0.16%	No Long-Term Growth		0.67%	0.00%
LO UN Equity	LORILLARD INC	0.12%	6.00%	0.01%	5.47%	0.01%
LOW UN Equity	LOWE'S COS INC	0.33%	11.08%	0.04%	1.76%	0.01%
LSI UN Equity	LSI CORP	0.03%	No Long-Term Growth		0.00%	0.00%
LTD UN Equity	LTD BRANDS INC	0.06%	12.07%	0.01%	3.01%	0.00%
MTB UN Equity	M & T BANK CORP	0.09%	4.63%	0.00%	3.58%	0.00%
M UN Equity	MACY'S INC	0.07%	10.00%	0.01%	1.32%	0.00%
MRO UN Equity	MARATHON OIL CORP	0.22%	7.83%	0.02%	3.21%	0.01%
MAR UN Equity	MARRIOTT INTERNATIONAL-CL A	0.09%	10.00%	0.01%	1.29%	0.00%
MMC UN Equity	MARSH & MCLENNAN COS	0.12%	12.00%	0.01%	3.71%	0.00%
MI UN Equity	MARSHALL & ILSLEY CORP	0.04%	8.83%	0.00%	0.58%	0.00%
MAS UN Equity	MASCO CORP	0.05%	11.67%	0.01%	2.03%	0.00%
MEE UN Equity	MASSEY ENERGY CO	0.04%	12.00%	0.00%	0.56%	0.00%
MA UN Equity	MASTERCARD INC-CLASS A	0.27%	19.33%	0.05%	0.24%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
MAT UW Equity	MATTEL INC	0.07%	8.50%	0.01%	3.76%	0.00%
MFE UN Equity	MCAFEE INC	0.06%	14.30%	0.01%	0.00%	0.00%
MKC UN Equity	MCCORMICK & CO-NON VTG SHRS	0.04%	10.10%	0.00%	2.78%	0.00%
MCD UN Equity	MCDONALD'S CORP	0.68%	10.89%	0.07%	3.59%	0.02%
MHP UN Equity	MCGRAW-HILL COMPANIES INC	0.11%	9.63%	0.01%	2.64%	0.00%
MCK UN Equity	MCKESSON CORP	0.16%	13.33%	0.02%	0.75%	0.00%
MJN UN Equity	MEAD JOHNSON NUTRITION CO	0.09%	9.00%	0.01%	1.97%	0.00%
MWV UN Equity	MEADWESTVACO CORP	0.04%	10.00%	0.00%	3.68%	0.00%
MHS UN Equity	MEDCO HEALTH SOLUTIONS INC	0.30%	17.62%	0.05%	0.05%	0.00%
MDT UN Equity	MEDTRONIC INC	0.48%	11.14%	0.05%	1.89%	0.01%
WFR UN Equity	MEMC ELECTRONIC MATERIALS	0.03%	30.00%	0.01%	0.00%	0.00%
MRK UN Equity	MERCK & CO. INC.	1.19%	5.05%	0.06%	3.85%	0.05%
MDP UN Equity	MEREDITH CORP	0.01%	13.00%	0.00%	2.85%	0.00%
MET UN Equity	METLIFE INC	0.29%	No Long-Term Growth		2.11%	0.00%
PCS UN Equity	METROPCS COMMUNICATIONS INC	0.02%	20.25%	0.00%	0.00%	0.00%
MCHP UW Equity	MICROCHIP TECHNOLOGY INC	0.05%	10.00%	0.00%	5.10%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
MU UW Equity	MICRON TECHNOLOGY INC	0.08%	10.67%	0.01%	0.00%	0.00%
MSFT UW Equity	MICROSOFT CORP	2.46%	11.18%	0.28%	1.84%	0.05%
MIL UN Equity	MILLIPORE CORP	0.04%	No Long-Term Growth		0.00%	0.00%
MOLX UW Equity	MOLEX INC	0.02%	12.50%	0.00%	2.99%	0.00%
TAP UN Equity	MOLSON COORS BREWING CO -B	0.07%	12.00%	0.01%	2.31%	0.00%
MON UN Equity	MONSANTO CO	0.42%	13.50%	0.06%	1.41%	0.01%
MWW UN Equity	MONSTER WORLDWIDE INC	0.02%	17.40%	0.00%	0.00%	0.00%
MCO UN Equity	MOODY'S CORP	0.07%	11.67%	0.01%	1.41%	0.00%
MS UN Equity	MORGAN STANLEY	0.38%	11.80%	0.04%	1.02%	0.00%
MOT UN Equity	MOTOROLA INC	0.15%	7.14%	0.01%	0.00%	0.00%
MUR UN Equity	MURPHY OIL CORP	0.10%	15.00%	0.02%	1.92%	0.00%
MYL UW Equity	MYLAN INC	0.05%	15.72%	0.01%	0.00%	0.00%
NBR UN Equity	NABORS INDUSTRIES LTD	0.07%	10.00%	0.01%	0.00%	0.00%
NDAQ UW Equity	NASDAQ OMX GROUP/THE	0.04%	14.83%	0.01%	0.00%	0.00%
NOV UN Equity	NATIONAL OILWELL VARCO INC	0.18%	7.00%	0.01%	0.40%	0.00%
NSM UN Equity	NATIONAL SEMICONDUCTOR CORP	0.03%	9.33%	0.00%	2.34%	0.00%
NTAP UW Equity	NETAPP INC	0.10%	16.67%	0.02%	0.00%	0.00%
NYT UN Equity	NEW YORK TIMES CO -CL A	0.02%	3.50%	0.00%	0.00%	0.00%
NWL UN Equity	NEWELL RUBBERMAID INC	0.04%	8.33%	0.00%	1.62%	0.00%
NEM UN Equity	NEWMONT MINING CORP	0.21%	8.10%	0.02%	0.86%	0.00%
NWSA UW Equity	NEWS CORP-CL A	0.23%	10.06%	0.02%	0.91%	0.00%
GAS UN Equity	NICOR INC	0.02%	3.50%	0.00%	4.59%	0.00%
NKE UN Equity	NIKE INC -CL B	0.25%	11.57%	0.03%	1.64%	0.00%
NI UN Equity	NISOURCE INC	0.04%	3.00%	0.00%	6.12%	0.00%
NBL UN Equity	NOBLE ENERGY INC	0.13%	7.00%	0.01%	0.96%	0.00%
JWN UN Equity	NORDSTROM INC	0.08%	12.61%	0.01%	1.78%	0.00%
NSC UN Equity	NORFOLK SOUTHERN CORP	0.18%	9.40%	0.02%	2.83%	0.01%
NU UN Equity	NORTHEAST UTILITIES	0.04%	7.89%	0.00%	3.89%	0.00%
NTRS UW Equity	NORTHERN TRUST CORP	0.12%	11.00%	0.01%	2.17%	0.00%
NOC UN Equity	NORTHROP GRUMMAN CORP	0.18%	8.50%	0.02%	3.08%	0.01%
NOVL UW Equity	NOVELL INC	0.02%	10.00%	0.00%	0.00%	0.00%
NVLS UW Equity	NOVELLUS SYSTEMS INC	0.02%	No Long-Term Growth		0.00%	0.00%
NRG UN Equity	NRG ENERGY INC	0.06%	2.51%	0.00%	0.18%	0.00%
NUE UN Equity	NUCOR CORP	0.13%	15.00%	0.02%	3.34%	0.00%
NVDA UW Equity	NVIDIA CORP	0.09%	15.40%	0.01%	0.00%	0.00%
NYX UN Equity	NYSE EURONEXT	0.06%	11.80%	0.01%	5.01%	0.00%
ORLY UW Equity	O'REILLY AUTOMOTIVE INC	0.05%	18.81%	0.01%	0.00%	0.00%
OXY UN Equity	OCCIDENTAL PETROLEUM CORP	0.65%	6.03%	0.04%	1.68%	0.01%
ODP UN Equity	OFFICE DEPOT INC	0.02%	11.40%	0.00%	0.00%	0.00%
OMC UN Equity	OMNICOM GROUP	0.11%	10.00%	0.01%	1.67%	0.00%
ORCL UW Equity	ORACLE CORP	1.17%	12.55%	0.15%	0.84%	0.01%
OI UN Equity	OWENS-ILLINOIS INC	0.05%	5.00%	0.00%	0.00%	0.00%
PCAR UW Equity	PACCAR INC	0.13%	11.00%	0.01%	1.26%	0.00%
PTV UN Equity	PACTIV CORPORATION	0.03%	12.15%	0.00%	0.00%	0.00%
PLL UN Equity	PALL CORP	0.04%	13.75%	0.01%	1.90%	0.00%
PH UN Equity	PARKER HANNIFIN CORP	0.09%	9.67%	0.01%	1.75%	0.00%
PDCO UW Equity	PATTERSON COS INC	0.04%	14.33%	0.01%	0.00%	0.00%
PAYX UW Equity	PAYCHEX INC	0.11%	12.08%	0.01%	4.23%	0.00%
BTU UN Equity	PEABODY ENERGY CORP	0.12%	9.50%	0.01%	0.64%	0.00%
PBCT UW Equity	PEOPLE'S UNITED FINANCIAL	0.05%	9.00%	0.00%	4.08%	0.00%
POM UN Equity	PEPCO HOLDINGS INC	0.04%	6.33%	0.00%	5.72%	0.00%
PBG UN Equity	PEPSI BOTTLING GROUP INC	0.08%	7.50%	0.01%	2.12%	0.00%
PEP UN Equity	PEPSICO INC	0.94%	9.94%	0.09%	3.11%	0.03%
PKI UN Equity	PERKINELMER INC	0.02%	9.83%	0.00%	1.34%	0.00%
PFE UN Equity	PFIZER INC	1.53%	3.42%	0.05%	4.09%	0.06%
PCG UN Equity	P G & E CORP	0.15%	7.36%	0.01%	4.19%	0.01%
PM UN Equity	PHILIP MORRIS INTERNATIONAL	0.89%	11.00%	0.10%	5.18%	0.05%
PNW UN Equity	PINNACLE WEST CAPITAL	0.04%	5.00%	0.00%	5.83%	0.00%
PXD UN Equity	PIONEER NATURAL RESOURCES CO	0.05%	No Long-Term Growth		0.66%	0.00%
PBI UN Equity	PITNEY BOWES INC	0.04%	No Long-Term Growth		6.73%	0.00%
PCL UN Equity	PLUM CREEK TIMBER CO	0.06%	6.80%	0.00%	4.39%	0.00%
PNC UN Equity	PNC FINANCIAL SERVICES GROUP	0.25%	7.33%	0.02%	0.73%	0.00%
RL UN Equity	POLO RALPH LAUREN CORP	0.05%	14.20%	0.01%	0.26%	0.00%
PPG UN Equity	PPG INDUSTRIES INC	0.10%	6.00%	0.01%	3.62%	0.00%
PPL UN Equity	PPL CORPORATION	0.11%	8.96%	0.01%	4.88%	0.01%
PX UN Equity	PRAXAIR INC	0.23%	10.57%	0.02%	2.26%	0.01%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
PCP UN Equity	PRECISION CASTPARTS CORP	0.15%	14.75%	0.02%	0.11%	0.00%
PCLN UW Equity	PRICELINE.COM INC	0.09%	19.33%	0.02%	0.00%	0.00%
PFG UN Equity	PRINCIPAL FINANCIAL GROUP	0.08%	9.60%	0.01%	2.06%	0.00%
PG UN Equity	PROCTER & GAMBLE CO/THE	1.80%	9.00%	0.16%	2.85%	0.05%
PGN UN Equity	PROGRESS ENERGY INC	0.11%	3.86%	0.00%	6.37%	0.01%
PGR UN Equity	PROGRESSIVE CORP	0.11%	7.79%	0.01%	1.14%	0.00%
PLD UN Equity	PROLOGIS	0.06%	3.42%	0.00%	4.51%	0.00%
PRU UN Equity	PRUDENTIAL FINANCIAL INC	0.24%	11.87%	0.03%	1.50%	0.00%
PEG UN Equity	PUBLIC SERVICE ENTERPRISE GP	0.15%	4.33%	0.01%	4.55%	0.01%
PSA UN Equity	PUBLIC STORAGE	0.14%	4.01%	0.01%	2.76%	0.00%
PHM UN Equity	PULTE HOMES INC	0.04%	10.50%	0.00%	0.00%	0.00%
QLGC UW Equity	QLOGIC CORP	0.02%	11.20%	0.00%	0.00%	0.00%
QCOM UW Equity	QUALCOMM INC	0.65%	17.46%	0.11%	1.75%	0.01%
PWR UN Equity	QUANTA SERVICES INC	0.04%	12.67%	0.00%	0.00%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
DGX UN Equity	QUEST DIAGNOSTICS	0.10%	12.23%	0.01%	0.73%	0.00%
STR UN Equity	QUESTAR CORP	0.07%	No Long-Term Growth		1.16%	0.00%
Q UN Equity	QWEST COMMUNICATIONS INTL	0.08%	1.26%	0.00%	7.22%	0.01%
RSH UN Equity	RADIOSHACK CORP	0.02%	8.64%	0.00%	1.32%	0.00%
RRC UN Equity	RANGE RESOURCES CORP	0.08%	1.50%	0.00%	0.25%	0.00%
RTN UN Equity	RAYTHEON COMPANY	0.21%	8.57%	0.02%	2.39%	0.00%
RHT UN Equity	RED HAT INC	0.05%	19.63%	0.01%	0.00%	0.00%
RF UN Equity	REGIONS FINANCIAL CORP	0.08%	1.50%	0.00%	0.61%	0.00%
RSG UN Equity	REPUBLIC SERVICES INC	0.10%	16.15%	0.02%	2.81%	0.00%
RAI UN Equity	REYNOLDS AMERICAN INC	0.15%	6.00%	0.01%	6.73%	0.01%
RHI UN Equity	ROBERT HALF INTL INC	0.04%	12.67%	0.01%	1.79%	0.00%
ROK UN Equity	ROCKWELL AUTOMATION INC	0.07%	12.98%	0.01%	2.30%	0.00%
COL UN Equity	ROCKWELL COLLINS INC.	0.09%	11.46%	0.01%	1.79%	0.00%
ROP UN Equity	ROPER INDUSTRIES INC	0.05%	14.00%	0.01%	0.67%	0.00%
ROST UW Equity	ROSS STORES INC	0.06%	13.63%	0.01%	1.03%	0.00%
RDC UN Equity	ROWAN COMPANIES INC	0.03%	15.50%	0.00%	0.34%	0.00%
RRD UW Equity	RR DONNELLEY & SONS CO	0.04%	No Long-Term Growth		0.00%	0.00%
R UN Equity	RYDER SYSTEM INC	0.02%	12.50%	0.00%	0.00%	0.00%
SWY UN Equity	SAFEWAY INC	0.09%	8.27%	0.01%	1.83%	0.00%
SAI UN Equity	SAIC INC	0.07%	12.28%	0.01%	0.00%	0.00%
CRM UN Equity	SALESFORCE.COM INC	0.08%	30.98%	0.02%	0.00%	0.00%
SNDK UW Equity	SANDISK CORP	0.06%	19.50%	0.01%	0.00%	0.00%
SLE UN Equity	SARA LEE CORP	0.09%	8.06%	0.01%	3.55%	0.00%
SCG UN Equity	SCANA CORP	0.04%	5.40%	0.00%	5.29%	0.00%
SLB UN Equity	SCHLUMBERGER LTD	0.78%	13.10%	0.10%	1.30%	0.01%
SCHW UW Equity	SCHWAB (CHARLES) CORP	0.21%	13.60%	0.03%	1.33%	0.00%
SNI UN Equity	SCRIPPS NETWORKS INTER-CL A	0.06%	14.57%	0.01%	0.59%	0.00%
SEE UN Equity	SEALED AIR CORP	0.03%	6.00%	0.00%	2.39%	0.00%
SHLD UW Equity	SEARS HOLDINGS CORP	0.11%	10.00%	0.01%	0.00%	0.00%
SRE UN Equity	SEMPRA ENERGY	0.13%	6.67%	0.01%	3.24%	0.00%
SHW UN Equity	SHERWIN-WILLIAMS CO/THE	0.07%	7.51%	0.01%	2.25%	0.00%
SIAL UW Equity	SIGMA-ALDRICH	0.06%	10.50%	0.01%	1.28%	0.00%
SPG UN Equity	SIMON PROPERTY GROUP INC	0.21%	5.31%	0.01%	3.32%	0.01%
SLM UN Equity	SLM CORP	0.05%	10.67%	0.01%	0.00%	0.00%
SII UN Equity	SMITH INTERNATIONAL INC	0.08%	12.67%	0.01%	1.48%	0.00%
SNA UN Equity	SNAP-ON INC	0.02%	15.00%	0.00%	0.00%	0.00%
SO UN Equity	SOUTHERN CO	0.25%	4.62%	0.01%	5.60%	0.01%
LUV UN Equity	SOUTHWEST AIRLINES CO	0.08%	11.00%	0.01%	0.09%	0.00%
SWN UN Equity	SOUTHWESTERN ENERGY CO	0.15%	40.50%	0.06%	0.00%	0.00%
SE UN Equity	SPECTRA ENERGY CORP	0.14%	7.00%	0.01%	4.61%	0.01%
S UN Equity	SPRINT NEXTEL CORP	0.10%	No Long-Term Growth		0.00%	0.00%
STJ UN Equity	ST JUDE MEDICAL INC	0.13%	13.15%	0.02%	0.00%	0.00%
SWK UN Equity	STANLEY WORKS/THE	0.04%	9.00%	0.00%	2.46%	0.00%
SPLS UW Equity	STAPLES INC	0.17%	14.33%	0.02%	1.45%	0.00%
SBUX UW Equity	STARBUCKS CORP	0.16%	17.11%	0.03%	0.00%	0.00%
HOT UN Equity	STARWOOD HOTELS & RESORTS	0.06%	10.00%	0.01%	0.62%	0.00%
STT UN Equity	STATE STREET CORP	0.22%	11.67%	0.03%	0.62%	0.00%
SRCL UW Equity	STERICYCLE INC	0.04%	16.75%	0.01%	0.00%	0.00%
SYK UN Equity	STRYKER CORP	0.21%	12.99%	0.03%	0.92%	0.00%
SUN UN Equity	SUNOCO INC	0.03%	5.00%	0.00%	1.83%	0.00%
STI UN Equity	SUNTRUST BANKS INC	0.12%	6.75%	0.01%	0.21%	0.00%
SVU UN Equity	SUPERVALU INC	0.03%	No Long-Term Growth		4.10%	0.00%
SYMC UW Equity	SYMANTEC CORP	0.14%	9.07%	0.01%	0.00%	0.00%
SYY UN Equity	SYSCO CORP	0.16%	10.50%	0.02%	3.57%	0.01%
TROW UW Equity	T ROWE PRICE GROUP INC	0.13%	9.57%	0.01%	2.06%	0.00%
TGT UN Equity	TARGET CORP	0.38%	14.70%	0.06%	1.38%	0.01%
TE UN Equity	TECO ENERGY INC	0.03%	8.33%	0.00%	5.17%	0.00%
TLAB UW Equity	TELLABS INC	0.03%	10.33%	0.00%	1.21%	0.00%
THC UN Equity	TENET HEALTHCARE CORP	0.03%	8.75%	0.00%	0.00%	0.00%
TDC UN Equity	TERADATA CORP	0.05%	13.33%	0.01%	0.00%	0.00%
TER UN Equity	TERADYNE INC	0.02%	19.80%	0.00%	0.00%	0.00%
TSO UN Equity	TESORO CORP	0.02%	No Long-Term Growth		1.54%	0.00%
TXN UN Equity	TEXAS INSTRUMENTS INC	0.29%	9.60%	0.03%	2.02%	0.01%
TXT UN Equity	TEXTRON INC	0.06%	31.14%	0.02%	0.39%	0.00%
TMO UN Equity	THERMO FISHER SCIENTIFIC INC	0.19%	10.47%	0.02%	0.00%	0.00%
TIF UN Equity	TIFFANY & CO	0.05%	10.69%	0.01%	1.70%	0.00%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
TWC UN Equity	TIME WARNER CABLE	0.16%	13.50%	0.02%	3.05%	0.00%
TWX UN Equity	TIME WARNER INC	0.33%	13.05%	0.04%	2.69%	0.01%
TIE UN Equity	TITANIUM METALS CORP	0.02%	12.50%	0.00%	0.00%	0.00%
TJX UN Equity	TJX COMPANIES INC	0.16%	12.33%	0.02%	1.32%	0.00%
TMK UN Equity	TORCHMARK CORP	0.04%	8.00%	0.00%	1.52%	0.00%
TSS UN Equity	TOTAL SYSTEM SERVICES INC	0.03%	10.11%	0.00%	1.96%	0.00%
TRV UN Equity	TRAVELERS COS INC/THE	0.26%	7.74%	0.02%	2.61%	0.01%
TSN UN Equity	TYSON FOODS INC-CL A	0.04%	8.50%	0.00%	1.12%	0.00%
UNP UN Equity	UNION PACIFIC CORP	0.31%	12.68%	0.04%	1.76%	0.01%
UPS UN Equity	UNITED PARCEL SERVICE-CL B	0.41%	12.00%	0.05%	3.15%	0.01%
UTX UN Equity	UNITED TECHNOLOGIES CORP	0.63%	9.67%	0.06%	2.33%	0.01%
UNH UN Equity	UNITEDHEALTH GROUP INC	0.39%	11.26%	0.04%	0.04%	0.00%
UNM UN Equity	UNUM GROUP	0.07%	No Long-Term Growth		1.62%	0.00%
USB UN Equity	US BANCORP	0.47%	6.50%	0.03%	1.17%	0.01%

Standard and Poor's 500 Index

Ticker	Name	Weight in the Index (%)	Long-Term Growth Estimate (%)	Cap-Weighted Long-Term Growth	Estimated 2009 Dividend Yield (%)	Cap-Weighted Dividend Yield
X UN Equity	UNITED STATES STEEL CORP	0.07%	7.50%	0.01%	0.42%	0.00%
VLO UN Equity	VALERO ENERGY CORP	0.11%	No Long-Term Growth		1.63%	0.00%
VAR UN Equity	VARIAN MEDICAL SYSTEMS INC	0.06%	13.60%	0.01%	0.00%	0.00%
VTR UN Equity	VENTAS INC	0.07%	4.48%	0.00%	4.82%	0.00%
VRSN UW Equity	VERISIGN INC	0.04%	No Long-Term Growth		0.00%	0.00%
VZ UN Equity	VERIZON COMMUNICATIONS INC	0.83%	4.57%	0.04%	6.45%	0.05%
VFC UN Equity	VF CORP	0.08%	11.00%	0.01%	3.24%	0.00%
VIA/B UN Equity	VIACOM INC-CLASS B	0.16%	8.93%	0.01%	0.00%	0.00%
V UN Equity	VISA INC-CLASS A SHARES	0.39%	20.22%	0.08%	0.58%	0.00%
VNO UN Equity	VORNADO REALTY TRUST	0.12%	7.84%	0.01%	3.89%	0.00%
VMC UN Equity	VULCAN MATERIALS CO	0.06%	24.90%	0.01%	2.18%	0.00%
WMT UN Equity	WAL-MART STORES INC	2.01%	10.92%	0.22%	2.19%	0.04%
WAG UN Equity	WALGREEN CO	0.36%	14.44%	0.05%	1.51%	0.01%
DIS UN Equity	WALT DISNEY CO/THE	0.57%	9.82%	0.06%	1.10%	0.01%
WPO UN Equity	WASHINGTON POST-CLASS B	0.04%	No Long-Term Growth		0.00%	0.00%
WM UN Equity	WASTE MANAGEMENT INC	0.16%	10.37%	0.02%	3.73%	0.01%
WAT UN Equity	WATERS CORP	0.05%	15.37%	0.01%	0.00%	0.00%
WPI UN Equity	WATSON PHARMACEUTICALS INC	0.05%	9.39%	0.00%	0.00%	0.00%
WLP UN Equity	WELLPOINT INC	0.29%	12.14%	0.04%	0.00%	0.00%
WFC UN Equity	WELLS FARGO & CO	1.47%	11.00%	0.16%	0.72%	0.01%
WDC UN Equity	WESTERN DIGITAL CORP	0.09%	8.00%	0.01%	0.00%	0.00%
WU UN Equity	WESTERN UNION CO	0.13%	12.92%	0.02%	0.98%	0.00%
WY UN Equity	WEYERHAEUSER CO	0.09%	4.00%	0.00%	0.47%	0.00%
WHR UN Equity	WHIRLPOOL CORP	0.06%	15.00%	0.01%	2.10%	0.00%
WFMI UW Equity	WHOLE FOODS MARKET INC	0.05%	16.67%	0.01%	0.00%	0.00%
WMB UN Equity	WILLIAMS COS INC	0.13%	12.50%	0.02%	2.04%	0.00%
WIN UW Equity	WINDSTREAM CORP	0.04%	0.29%	0.00%	9.49%	0.00%
WEC UN Equity	WISCONSIN ENERGY CORP	0.06%	8.90%	0.01%	3.14%	0.00%
GWW UN Equity	WW GRAINGER INC	0.07%	13.35%	0.01%	1.86%	0.00%
WYN UN Equity	WYNDHAM WORLDWIDE CORP	0.04%	No Long-Term Growth		0.73%	0.00%
WYNN UW Equity	WYNN RESORTS LTD	0.08%	No Long-Term Growth		0.00%	0.00%
XEL UN Equity	XCEL ENERGY INC	0.10%	5.41%	0.01%	4.78%	0.00%
XRX UN Equity	XEROX CORP	0.08%	7.00%	0.01%	1.86%	0.00%
XLNX UW Equity	XILINX INC	0.07%	16.67%	0.01%	2.48%	0.00%
XL UN Equity	XL CAPITAL LTD -CLASS A	0.06%	No Long-Term Growth		2.33%	0.00%
XTO UN Equity	XTO ENERGY INC	0.27%	14.00%	0.04%	1.08%	0.00%
YHOO UW Equity	YAHOO! INC	0.21%	15.52%	0.03%	0.00%	0.00%
YUM UN Equity	YUM! BRANDS INC	0.17%	11.54%	0.02%	2.50%	0.00%
ZMH UN Equity	ZIMMER HOLDINGS INC	0.12%	9.83%	0.01%	0.00%	0.00%
ZION UW Equity	ZIONS BANCORPORATION	0.03%	8.20%	0.00%	0.24%	0.00%

BOND YIELD RISK PREMIUM

Quarter	Avg. Auth. Gas ROE	Avg. Moody's Baa-rated Utility	Risk Premium (ROE minus Moody's Baa-rated Utility)
1992.1	12.42%	9.08%	3.34%
1992.2	11.98%	9.01%	2.98%
1992.3	11.87%	8.60%	3.26%
1992.4	11.94%	8.77%	3.17%
1993.1	11.75%	8.33%	3.42%
1993.2	11.71%	8.11%	3.60%
1993.3	11.39%	7.62%	3.76%
1993.4	11.16%	7.56%	3.59%
1994.1	11.12%	7.84%	3.28%
1994.2	10.84%	8.57%	2.26%
1994.3	10.87%	8.84%	2.03%
1994.4	11.53%	9.25%	2.28%
1995.2	11.00%	8.33%	2.67%
1995.3	11.07%	8.11%	2.96%
1995.4	11.61%	7.75%	3.85%
1996.1	11.45%	7.86%	3.59%
1996.2	10.88%	8.43%	2.45%
1996.3	11.25%	8.37%	2.88%
1996.4	11.19%	8.00%	3.19%
1997.1	11.31%	8.15%	3.15%
1997.2	11.70%	8.27%	3.43%
1997.3	12.00%	7.88%	4.12%
1997.4	10.92%	7.52%	3.39%
1998.2	11.37%	7.31%	4.06%
1998.3	11.41%	7.19%	4.22%
1998.4	11.69%	7.23%	4.46%
1999.1	10.82%	7.42%	3.40%
1999.2	11.25%	7.76%	3.49%
1999.4	10.38%	8.24%	2.14%
2000.1	10.66%	8.38%	2.28%
2000.2	11.03%	8.58%	2.46%
2000.3	11.33%	8.30%	3.03%
2000.4	12.10%	8.19%	3.47%
2001.1	11.38%	7.93%	4.14%
2001.2	10.75%	8.06%	2.69%
2001.4	10.65%	8.08%	2.57%
2002.1	10.67%	8.21%	2.46%
2002.2	11.64%	8.28%	3.37%
2002.3	11.50%	7.81%	3.69%
2002.4	10.81%	7.76%	3.05%
2003.1	11.38%	7.23%	4.16%
2003.2	11.36%	6.56%	4.80%
2003.3	10.61%	6.88%	3.74%
2003.4	10.84%	6.70%	4.15%
2004.1	11.06%	6.29%	4.77%
2004.2	10.57%	6.68%	3.89%
2004.3	10.37%	6.46%	3.91%
2004.4	10.66%	6.14%	4.52%
2005.1	10.65%	5.91%	4.74%
2005.2	10.54%	5.84%	4.69%
2005.3	10.47%	5.81%	4.66%
2005.4	10.32%	6.14%	4.18%
2006.1	10.68%	6.14%	4.54%
2006.2	10.60%	6.58%	4.02%
2006.3	10.34%	6.43%	3.90%
2006.4	10.14%	6.11%	4.03%
2007.1	10.57%	6.12%	4.45%
2007.2	10.13%	6.34%	3.79%
2007.3	10.03%	6.48%	3.54%
2007.4	10.12%	6.38%	3.74%
2008.1	10.38%	6.54%	3.83%
2008.2	10.17%	6.84%	3.32%
2008.3	10.55%	7.03%	3.52%
2008.4	10.34%	8.56%	1.78%
2009.1	10.24%	7.88%	2.36%
2009.2	10.19%	7.70%	2.49%
2009.3	9.88%	6.45%	3.43%
2009.4	10.27%	6.20%	4.07%
2010.1	10.30%	6.16%	4.14%
AVERAGE	10.96%	7.47%	3.49%

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.780353291
R Square	0.608951258
Adjusted R Square	0.60311471
Standard Error	0.004695856
Observations	69

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.002300679	0.002300679	104.3341403	2.69632E-15
Residual	67	0.001477422	2.20511E-05		
Total	68	0.003778101			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.080833111	0.004536187	17.81961598	4.03227E-27	0.071778844	0.089887378	0.071778844	0.089887378
X Variable 1	-0.615279252	0.060236406	-10.21440847	2.69632E-15	-0.73551162	-0.495046885	-0.73551162	-0.495046885

Scenario (Moody's Baa-rated Utility Bond)	Moody's Baa	Risk Prem. [3]	ROE
30-day average as of 1/29/2010	6.21%	4.26%	10.47%
90-day average as of 1/29/2010	6.17%	4.29%	10.46%
180-day average as of 1/29/2010	6.53%	4.07%	10.59%
MEAN		4.21%	10.51%

Notes
[1] Source: Regulatory Research Associates, *Rate Case Statistics*, accessed February 2, 2010.
[2] Source: Bloomberg Professional Service. Quarterly bond yields are the average of the last trading day of each month in the quarter.
[3] Independent variable = Bond Yield; Dependent Variable = Risk Premium.

COMPARISON OF CURRENT AND PROPOSED ADJUSTMENT MECHANISMS GAS PROXY GROUP COMPANIES TO ENERGYNORTH

	AGL	LG	GAS	NWN	PNY	SJI	SWX	WGL	EnergyNorth
Gas Supply Recovery	• PGA in all applicable jurisdictions	• Monthly PGA • Financial Risk Management (FRM) Incentives	• Annual PGA	• Annual PGA • FRM Incentives	• PGA in all applicable jurisdictions • FRM Incentives (TN)	• Basic Gas Supply Service charge	• PGA in all applicable jurisdictions • Gas Cost Incentive Program (CA)	• PGA • FRM Incentives	• Semiannual PGA
General Cost Recovery Mechanisms	• Environ mental Recovery Rider (FL,GA) • Societal Benefits Charge (NJ) • Regulatory Asset recovery (NJ) • Pension& PBOP • WNA (NJ, TN, VA) • Pipeline Replacement (GA, NJ) • Accelerated Infrastructure Replacement (NJ) • IT Margin Credit (TN)	• Infrastructure System Replacement Surcharge ("ISRS") • Residential Tariff Seasonal Structure	• Storage Service Cost Recovery • Environmental Cost Recovery • Energy Efficiency Plan	• Environmental Remediation • Safety Program cost recovery (OR) • Industrial DSM (OR) • Energy Conservation programs (WA)	• WNA (SC,TN) • TN-Highway relocation cost recovery	SBC • USF • RAC • NJCEP • PBOP FAS 158 • Pension Accruals • Accelerated Infrastructure Program • Pipeline Integrity • Remediation Adjustment Clause • Temperature Adjustment Clause	• Low Income Rate Assistance Rate Adjustment Provision (AZ) • Public Purpose Program Balancing Accounts (CA)	• WNA (VA) • DSM (MD) • Pension and OPEB (WA)	Local Delivery Adjustment Clause • Conservation expenditures • Environmental surcharges • Gas restructuring expenses • Rate case expenses • Residential low income assistance program costs
Decoupling	• Straight Fixed Variable (GA) • Decoupling (MD, NJ) • Conservation and Ratemaking Efficiency Plan (VA)		• Straight-Fixed Variable Rate Design	• Conservation Tariff – Partial decoupling(OR)	• Margin Decoupling (NC) • Natural gas Rate Stabilization Act (SC)	Conservation Incentive Program • Usage & weather	• Fixed Cost Adjustment Mechanism (CA)	• Rev Normalization Adjustment (MD)	
PBR	• PBR (TN)							• PBR (VA) • Earnings sharing mechanism (DC)	
Proposed Mechanisms	• Decoupling to be proposed in 4 jurisdictions. • Proposed an Efficient Usage Adjustment Mechanism in NJ.			• AMR Deferral Application (OR)			• Decoupling proposed in current rate proceeding in Nevada. • Company continues to work with regulators on decoupling structures in Arizona.	• RNA (DC)	

AGL Resources

Florida	
Purchased Gas Adjustment	The PGA Charge is designed to recover the cost of purchased gas including the cost of storing or transporting, the cost of financial instruments employed to stabilize gas costs, other charges or credits as may result from the operation of other tariff provisions, and taxes and assessments in connection with the purchase and sale of gas. Over and under-recoveries are reconciled with interest.
Energy Conservation Cost Recovery Rider (ECCR)	The ECCR Rider is applied to the distribution charge to recover conservation related expenditures by the Company, including program costs and customer incentives. The rider is set based on the Company's estimated conservation costs (programs and customer incentives) for the next calendar year, along with a true-up for any actual conservation cost under-or over-recovery for the previous year and requires regulatory approval.
Competitive Rate Adjustment	The Competitive Rate Adjustment provides for the collection/reimbursement of shortfalls/surpluses collected through the Distribution Charge. The existence of a shortfall or surplus shall be determined by comparing Company's actual revenue with its base revenue.
Georgia	
Straight Fixed Variable Sculpting Adjustment (GA)	This mechanism is designed to help collect the difference between Dedicated Design Day Capacity charges collected and those accrued. Charges are collected based on a "sculpted" schedule designed around customer usage. Charges are recognized based on a straight-fixed variable rate design. For financial accounting purposes, the Company records into a deferred revenue account the difference between the Straight Fixed-Variable Dedicated Design Day Capacity revenues recognized and the Sculpted Dedicated Design Day Capacity collected. The company reconciles such deferred revenue account annually for the period of February 1 through January 31, and applies the appropriate positive or negative adjustment (the SFV Sculpting Adjustment) to the DDDC for a subsequent period. The Rider is only applicable to Residential Delivery Service customers.
Environmental Response Cost Recovery Rider (GA)	Environmental Response Costs including investigation, remediation, testing and litigation expenses. This cost factor is calculated annually and an adjustment rider is used to "true up" any over or under recovery. Environmental Response Costs cannot exceed 5% of jurisdictional revenues in any year.
Social Responsibility Cost Rider (GA)	The Social Responsibility Cost Rider is used to collect a portion of Low Income Senior Citizen Discounts which the Utility has distributed.
Pipeline Replacement Program Cost Recovery Rider (GA)	The purpose of this Rider is for the Company to recover certain costs associated with the replacement of bare steel and cast iron pipe on the Company's system, first approved by Commission Order dated September 3, 1998 in Docket No. 8516-U.
Maryland	
Purchased Gas Adjustment Clause (PGA)	Purchased Gas Adjustment is a monthly adjustment consisting of the current annualized cost of purchased gas, including transportation and storage.

	The Actual Cost Adjustment is calculated to determine the difference between PGA collected and actual cost of gas. This is calculated and applied annually, per therm, to "true up" the accounts.
Revenue Normalization Adjustment Clause (RNA)	The RNA normalizes monthly heating customer bills, based on an average monthly bill. The RNA is calculated for two rate classes, Residential and Commercial. The charge is based on the revenues derived from the Customer and Distribution charges by class as authorized in the Company's last rate case as well as actual customers billed in a month and the total actual revenue for the month. .
	New Jersey
Basic Gas Supply Service Charge (NJ)	The BGSS Charge, as defined herein, is designed to recover the cost to the Company of purchased gas including the cost of storing or transporting said gases or fuel, the cost of financial instruments employed to stabilize gas costs, other charges or credits as may result from the operation of other tariff provisions, and taxes and assessments in connection with the purchase and sale of gas. The BGSS is calculated monthly for customers in the following classes: GDS, LVD, EGF. Customers in the RDS, SGS, and GLS classes are subject to annual adjustments.
Weather Normalization Clause (NJ)	The weather normalization charge applied in each winter period is calculated based on the difference between actual and normal weather during the preceding winter period, divided by sales. WNA charges are calculated annually, following the winter months.
On-System Margin Sharing Credit (NJ)	The On-System Margin Sharing Credit. The Rider is applicable to all service classifications that pay BGSS and RDS customers that receive gas from a TPS. The OSMC shall be calculated annually by taking the current year's credits, plus the prior year's OSMC over or under recovery balance and dividing the resulting sum by the annual forecasted volumes for the service classifications set forth above. The resulting rate shall be adjusted for all applicable taxes and assessments.
Societal Benefits Charge (NJ)	The SBC is designed to recover the costs of (1) Clean Energy Programs that were approved by the Board pursuant to its Comprehensive Resource Analysis regulations prior to April 30, 1997. The Clean Energy Program includes program costs not recoverable directly from standard offer providers and costs due to decreasing margin revenue as a result of improved efficiency and DSM. (2) Manufactured Gas Plant Remediation, and (3) Consumer Education and any other new programs which the Board determines should be recovered through the Societal Benefits Charge. (4) The Universal Service Fund and Lifeline which offer programs and assistance for low income families.
Regulatory Asset Recovery Charge (NJ)	The RARC is designed to recover stranded costs, costs that the Company cannot recover as a result of restructuring by the BPU. It is applicable to all Service Classifications except those with special contracts. The RARC shall be calculated annually by taking the total stranded costs plus the prior year's RARC over or

	under-recovery balance plus carrying costs, using the interest rate applicable to the RAC component of the SBC, and dividing by the forecasted quantities used in the calculation of the Societal Benefits Charge in Rider "D". The resulting rate shall be adjusted for all applicable taxes and assessments.
Infrastructure Replacement Program	In April 2009 the BPU approved an accelerated $60 million enhanced infrastructure program that will begin in 2009 and end in 2011.
	Tennessee
Weather Normalization Adjustment (TN)	The Weather Normalization Adjustment is in effect from November through April and is based on the difference between actual and projected normal weather during the winter months using the weighted average base rate of temperature sensitive sales for each rate schedule, the heat sensitive factor, and actual and normal billing cycle heating degree days.
Purchased Gas Adjustment (TN)	This Rider is intended to apply to all Gas Costs incurred in connection with the purchase, transportation and/or storage of gas purchased for general system supply.
Performance Based Ratemaking (TN)	The Performance-Based Ratemaking Mechanism (PBRM) is designed to encourage the utility to maximize its gas purchasing activities at minimum cost consistent with efficient operations and service reliability. Each plan year will begin July 1. The PBRM establishes predefined monthly benchmark indexes to which the Company's commodity cost index is compared. Each month, the Company will compare its actual commodity cost of gas to the appropriate benchmark amount. The benchmark gas cost will be computed by multiplying the actual purchase of quantities for the month, including those quantities injected into storage, by the appropriate index. If the Company's commodity gas cost for the year does not exceed the benchmark by 1% then an audit will be waived. If the cost exceeds 2% then a report justifying or explaining the cost will be required.
Interruptible Margin Credit Rider (TN)	This Interruptible Margin Credit Rider is intended to authorize the Company to recover ninety percent (90%) of the gross profit margin losses that result from rates negotiated under the provisions of Special Service Rate Schedule SS-1 or from Customers who switch to alternate fuels where the Company is unable to meet alternate fuel competition. This Interruptible Margin Credit Rider is also intended to authorize the Company to recover not more than fifty percent (50%) of the gross profit margin that results from transactions with non-jurisdictional Customers that rely on the Company's gas supply assets (all such transactions including off-system sales) should such transactions be made by the Company. The gross profit margin loss is calculated as 90% of the difference between a Test Year Targeted Rate Margin (from most recent rate case) and the Actual Negotiated Rate Margin. Any amount of gross profit margin losses will be recovered from the firm commodity component of gas costs as determined under the Purchased Gas Adjustment Provision. Adjustments are determined annually.
	Virginia
Weather Normalization	This Rider represents a surcharge or credit to a customer's bill based on deviations in actual degree days from normal degree days. It is applicable to customers

Adjustment Rider (VA)	qualifying under Schedule 1 (Residential Firm Gas) or Schedule 3 (Residential Air Conditioning Firm Gas) and is calculated using the weighted average non-gas rate per Ccf, the Ccf use per customer per degree day, and the non-weather sensitive Ccf per customer and is in effect from November to April.
Experimental Weather Normalization Adjustment Rider for General Service Customers (VA)	This Rider represents a surcharge or credit to a customer's bill based on deviations in actual degree days from normal degree days. It is applicable to customers receiving service under Rate Schedule 2 – General Firm Gas Sales Service and Rate Schedule 4 – General Air Conditioning Firm Gas Sales Service and is calculated by multiplying the customer's Net Winter Usage by the percent deviation of actual degree days to normal degree days by the applicable Non-Gas Rate (a billing rate per Ccf equal to $0.2238). The Rider will be in effect from November through April.
Conservation and Ratemaking Efficiency Plan	As part of this plan, Virginia Natural Gas intends to invest approximately $7 million over three years in new conservation programs and to implement an accompanying decoupled rate design mechanism that will help to mitigate the impact of declining usage due to conservation and provide the utility with an opportunity to recover its fixed costs.
	Proposed Mechanisms
Rate Stabilization	In 2009 and 2010, AGL expects to file base rate cases in four of six jurisdictions. As these rate cases are filed, AGL plans to seek rate reforms that encourage conservation and "decoupling. Elizabethtown - Filed in March 2009 for recovery of conservation programs and a proposed Efficiency Usage and Adjustment mechanism (EUA), which is a form of decoupling.

Laclede Group

Infrastructure System Replacement Surcharge ("ISRS")	The ISRS recovers eligible infrastructure replacements on a fixed monthly basis.
Purchased Gas Adjustment Clause ("PGAC")	The PGAC automatically recovers commodity and non-commodity costs of delivered natural gas with a monthly reconciliation of actual as compared to projected eligible gas costs. The PGAC also incorporates a Gas Supply Incentive Plan, whereby the company will share in savings obtained through hedging activities if the actual commodity cost of natural gas for a given year meets certain benchmarks. The PGAC also recovers the carrying cost of natural gas inventory. All adjustments incorporated into the PGAC are reconciled on a monthly basis by comparing the previous months' actual gas costs with the revenue collected from the PGAC. Any balances incur carrying costs at the current prime rate minus two percent.
Residential Tariff Seasonal Structure	Laclede's volumetric rates differ seasonally to incorporate a substantially higher rate for given consumption volume in winter as compared to summer volumetric rates.

Nicor, Inc (Nicor)

Straight-Fixed Variable Rate Design	Approved in March 2009 for Nicor's Residential rate class, this rate structure recovers approximately 80 percent of the company's fixed delivery service costs through the monthly customer charge, while lowering the volumetric charge.
Storage Service Cost Recovery	Recovery of storage service costs and carrying costs of the company's additional inventory with annual true-up of per therm charge.
Gas Supply Cost	Automatic gas cost recovery for cost of gas, storage services, and transportation costs, including hydrocarbons used in the manufactured gas process.
Environmental Cost Recovery	Automatic recovery of forecasted environmental survey, investigation, sampling, removal, disposal storage and remediation costs with respect to legacy manufactured gas operations.
Energy Efficiency Plan	The Energy Efficiency Plan recovers the actual costs to fund energy efficiency programs. Active for a four year period, unless reauthorized, the plan recovers the budgeted amount for each Plan Year and allows for carryover of budgeted amounts into subsequent years. Reconciliation period recovers deficiencies from the previous twelve month budgetary period over an eight month period.

Northwest Natural Gas

Purchased Gas Adjustment	Rate changes are established each year under PGA mechanisms in both Oregon and Washington to reflect changes in the expected cost of natural gas commodity purchases, including contractual arrangements to hedge the purchase price with financial derivatives, interstate pipeline demand charges, the application of temporary rate adjustments to amortize balances in deferred regulatory accounts, increases in bad debt expense and the removal of temporary rate adjustments effective for the previous year.
Oregon	
PGA Incentive Sharing Mechanism (OR)	Under the Oregon PGA incentive sharing mechanism, the Company can select either an 80 percent deferral or 90 percent deferral of higher or lower gas costs such that the impact on current earnings from the gas cost sharing is either 20 percent or 10 percent, respectively.
Weather Adjusted Rate Mechanism-Weather Normalization (OR)	Approved weather normalization through October 2012. This mechanism is designed to help stabilize the collection of fixed costs by adjusting residential and commercial customer billings based on temperature variances from average weather, with rate decreases when the weather is colder than average and rate increases when the weather is warmer than average. The mechanism is applied to r residential and commercial customers' bills between December 1 and May 15 of each heating season.
Regulatory and Insurance Recovery for Environmental Costs (OR)	In 2003, the OPUC approved the deferral of unreimbursed environmental costs associated with certain named sites. Beginning in 2006, the OPUC authorized the Company to accrue interest on deferred environmental cost balances, subject to an annual demonstration that the Company has maximized its insurance recovery or made substantial progress in securing insurance recovery for unrecovered environmental expenses.
Partial Decoupling Mechanism-Conservation Tariff (OR)	Rate mechanism designed to adjust margin for changes in consumption patterns due to residential and commercial customers' conservation efforts. The decoupling mechanism that is intended to break the link between utility earnings and the quantity of gas consumed by customers, removing any financial incentive by the utility to discourage customers' conservation efforts. Under the mechanism, each month, the company will calculate the difference between weather-normalized usage and the calculated baseline usage for each Residential and Commercial Customer group. The resulting usage differential is multiplied by the volumetric distribution margin for the applicable customer group. In Washington, customer use is not covered by a conservation tariff, and as such our utility earnings are affected by increases and decreases in usage based on customers' conservation efforts. Washington customers account for about 10 percent of our utility revenues.
Adjustment for Safety Programs (OR)	In 2004, the OPUC approved specific accounting treatment and cost recovery for a transmission pipeline integrity management program. The Company records these costs as either capital expenditures or regulatory assets, accumulates the costs over a 12 month period, and recovers the costs, subject to audit, through rate

	changes effective with the annual PGA.
Industrial Demand Side management (OR)	Recovers the costs of the Company's Industrial Energy Efficiency Program. Program becomes effective November 1, 2010.
Washington	
Energy Conservation Programs Adjustment (WA)	Recover costs associated with providing energy conservation services offered to specific rate classes.
Proposed Mechanisms	
AMR Deferral Application (OR)	In January 2009, the Company requested approval to defer $30 million in costs associated with its AMR project. This request is pending before the OPUC. If the request for deferral accounting is approved, the Company plans to seek approval to recover the deferred costs in the next PGA filing.

Piedmont Natural Gas

Purchased Gas Adjustment	Gas costs in all three jurisdictions are recoverable through PGA procedures and are not affected by the WNA or the margin decoupling mechanism. The company has incentive mechanisms for gas supply management whereby it retains 25% of secondary market margins generated through off-system sales and capacity release activity in all jurisdictions, with 75% credited to customers through the incentive plans. North Carolina- Purchased gas costs include all commodity/gas charges, demand charges, peaking charges, surcharges, emergency gas purchases, over-run charges, capacity charges, take-or-pay charges, or other similar charges in connection with the purchase, storage or transportation of gas. These costs are passed through to customers in the gas cost. In North Carolina and South Carolina, gas costs related to unrecoverable accounts are recovered through the PGA. Tennessee- Adjustment is intended to permit the Company to recover the total cost of gas purchased for customers including costs incurred in connection with the purchase, transportation and/or storage of gas purchased for general system supply, including, natural gas purchased from interstate pipeline transmission companies, producers, brokers, marketers, associations, intrastate pipeline transmission companies, joint ventures, providers of liquefied natural gas (LNG). The gas cost portion of net write-offs for a fiscal year that exceed the gas cost portion included in base rates is recovered through PGA procedures.
Margin Decoupling Mechanism (NC)	The margin decoupling mechanism provides for the recovery of the Company's approved margin from residential and commercial customers independent of consumption patterns. The margin decoupling mechanism was experimental for a three-year period, subject to review and approval for extension in a future general rate case proceeding. The margin decoupling mechanism, which replaced the Company's WNA mechanism that adjusted margins for weather, has been operating for three years and reconciles margin earned each month. Rate adjustments are filed semi-annually to refund any over-collection of margin or recover any under-collection of margin.
Natural Gas Rate Stabilization Act (SC)	Natural Gas Rate Stabilization Act (RSA) of 2005 became effective in South Carolina. The law provides electing natural gas utilities, including Piedmont, with a mechanism for the regular, periodic and more frequent (annual) adjustment of rates which is intended to: (1) encourage investment by natural gas utilities, (2) enhance economic development efforts, (3) reduce the cost of rate adjustment proceedings and (4) result in smaller but more frequent rate changes for customers. If the utility elects to operate under the Act, the annual filing will provide that the utility's rate of return on equity will remain within a 50-basis point band above or below the current allowed rate of return on equity.
Weather Normalization (SC and TN)	WNA mechanism in South Carolina and Tennessee that partially offsets the impact of colder- or warmer-than-normal weather on bills rendered in November through March for residential and commercial customers.

South Jersey Gas

Basic Gas Supply Service Clause ("BGSSC")	BGSSC is calculated and trued up annually and is designed to recover all gas costs including commodity costs, transportation and fuel and line loss costs, and non-commodity gas related costs.
Transportation Initiation Clause (TIC)	The purpose of the TIC is to enable the Company to recover both capital expenditures and operating costs associated with Electronic Data Interchange (EDI), including consulting costs and transaction costs.
Societal Benefits Clause (SBC) (Encompasses NJCEP and USF)	The purpose of SBC is to enable the Company to recover the costs of Clean Energy Program, Manufactured gas plans remediation, Universal Service Fund Permanent and Lifeline Credits and Tenants Assistance program, and other allowed costs. Trued up at the end of the year.
Remediation Adjustment Clause (RAC)	Recovers gas manufacturing facility remediation costs. This adjustment is estimated on a yearly basis, tracked on a monthly basis, allocated on a per therm basis, and trued up on a yearly basis through the SBC.
New Jersey Clean Energy Program (CLEP)	The CLEP factor is calculated annually based upon the projected CLEP costs and an amount that accounts for revenue erosion divided by the projected therm sales. Trued up on a yearly basis. This charge is assessed through the SBC.
Conservation Incentive Program ("CIP")	Baseline use per customer is set during base rate case proceedings. At the end of each year, usage excess or deficiencies are calculated by customer class to be surcharged or credited to customers pursuant to the CIP. While this is a volumetric adjustment, the cash impact of variations in customer usage will result in cash being collected from, or returned to, customers during the subsequent CIP year, which runs from October 1 to September.
Temperature Adjustment Clause (TAC)	(Replaced by the CIP, but still included in the Tariff). Recovers for unexpected fluctuations in temperature. This rider is utilized if the number of annual degree days in a year varies from the average by more than 0.5% of the 20 year cumulative normal degree days to adjust customer's bills. The degree day adjustment is multiplied by a degree day consumption factor to derive the volumetric adjustment. Allocated to customers on a volumetric basis.
Pension and PBOP-	The BPU authorized SJG to recover costs related to postretirement benefits under the accrual method of accounting consistent with FASB Statement No. 106. Upon the adoption of FASB Statement No. 158 in 2006, SJG's regulatory asset was increased by $37.1 million representing the recognition of underfunded positions of SJG's pension and other postretirement benefit plans.

Southwest Gas Corporation (SWX)

Purchased Gas Adjustment (PGA)	All three of SWX's jurisdictions employ some form of PGA to recover incurred natural gas costs. AZ – Tariff-Based Purchased Gas Cost Adjustment Provision adjusts a balancing account monthly to account for under or over collection of purchased gas costs. The balance of the account incurs interest at the one year constant maturity US Treasury rate. NV – Purchased gas costs recovered pursuant to Nevada State Utilities Code. Recovered costs include the carrying cost of any unrecovered balances. These balances are reconciled monthly and the adjustment is made quarterly. CA – Tariff-based Purchased Gas Cost Balancing Account adjusts monthly to account for under or over-collection of actual purchased gas costs. The account incurs interest charges at the current month three-month commercial paper interest rate.
Low Income Rate Assistance Rate Adjustment Provision (LIRA) Arizona	The LIRA is intended to recover the difference between projected low-income assistance costs and actual revenues received for such identified costs. The LIRA amount is updated annually, on May 1, following the peak winter heating season.
Fixed Cost Adjustment Mechanism (FCAM) California	The FCAM is intended to recover the difference between the authorized level of margin, upstream storage charges, and interstate reservations/firm access charges and the actual recorded revenues intended to recover those costs. The FCAM adjusts annually based on monthly accounting for the differences as noted above. The adjustment is based on the balance of the account at the end of the yearly period and the projected volumes of natural gas to be delivered to customers in the succeeding annual forecast period.
Public Purpose Program Balancing Accounts (PPP) California	The PPP accounts are intended to recover any differences between the authorized recovery of the costs of low-income assistance, energy efficiency, and public interest research and development with the actual PPP revenues received in any given month. The adjustment itself is changed annually.
Gas Cost Incentive Program (GCIP) California	The GCIP incentivizes SWX to procure natural gas effectively by sharing savings in the actual cost of gas on a varying scale between the company and ratepayers. The GCIP is accounted as a separate subaccount in SWX's Purchased Gas Cost Balancing Account and is flowed through to rate payers through that adjustment.
Proposed Mechanisms	
Arizona	According to SWX's May 1, 2009 SEC Form 10-Q, SWX's management continues to work with regulators in Arizona to establish a decoupling methodology that would allow the Company to support and encourage conservation efforts without jeopardizing the recognition of authorized operating margin.

Nevada	According to SWX's May 1, 2009 SEC Form 10-Q, SWX filed a general rate application with the Public Utilities Commission of Nevada in April 2009. The Company is seeking to implement a decoupled rate structure based on recently established regulations that will help stabilize operating margin and allow the company to more aggressively pursue customer conservation opportunities through implementation of conservation and energy efficiency programs.

Washington Gas Light

Purchased Gas Adjustment Charge	Automatic gas cost recovery in all jurisdictions (MD, VA, and DC). Carrying cost on storage and over or under collected gas costs in all jurisdictions. In addition, WGL has asset management incentives in place in all jurisdictions. WGL's Gas Administrative Charge (GAC) is incorporated into each of the jurisdictions' PGAs and is designed to remove the cost of uncollectible accounts expense related to gas costs from base rates and instead collects these expenses under each jurisdiction's PGA.
Maryland	
Revenue Normalization Adjustment	Compares target for recent base-rate determination of revenues against all revenues adjusted for growth. This mechanism is a monthly adjustment that is comprised of two factors; 1) a "current factor' and a 2) a "reconciliation factor". The current factor utilizes the test-year non-gas revenue and adjusts that revenue for changes in the number of customers, by rate class, as compared with test year levels using a class-specific customer growth adjustment. The reconciliation factor is also computed monthly by comparing actual collections or credits with the calculated RNA amount and any applicable reconciling amount as filed. The calculated under-or-over collection is included in the RNA factor succeeding month.
Demand Side Management Surcharge Adjustment	Recovers the cost of demand side management expenditures from the prior annual period including utility expenditures, incentive payments to customers, lost margins from program savings and expenses not elsewhere recovered in rates. DSM adjustment is trued up at the end of the year through a reconciliation factor.
Virginia	
Performance Based Rates	PBR plan includes: (i) a four-year base rate freeze (beginning October 2007); (ii) service quality measures to be determined in conjunction with the VA Staff and reported quarterly for maintaining a safe and reliable natural gas distribution system while striving to control operating costs; (iii) recovery of initial implementation costs associated with achieving Washington Gas's BPO initiatives over the four-year period of the PBR plan and (iv) an ESM that enables Washington Gas to share with shareholders and Virginia customers the earnings that exceed a target of 10.5 percent return on equity.
Weather Normalization Adjustment (WNA)	WNA charge is calculated annually and trued up at the end of each year based on the difference between their actual usage and their base usage.
Washington D.C	
PBR- Earnings Sharing Mechanism	DC settlement includes rate freeze that enables Washington Gas to retain all earnings in excess of 8.12% ROR through Oct 1, 2011
Pension and OPEB	Recovery mechanism in place to recover Pension and OPEB costs.

Proposed Mechanisms	
Revenue Normalization Adjustment	Proposed RNA in Washington DC that is expected to be implemented in the fall of 2009.

EnergyNorth Natural Gas

New Hampshire	
Cost of Gas Clause	Allows EnergyNorth to recover the following costs including carrying charges: commodity costs, taxes on commodity, demand charges, local production and storage costs, other gas supply expenses incurred to procure and transport supplies, gas used in company operations, transportation fees, costs associated with buyouts of existing contracts, purchased gas working capital, and a bad debt allowance as approved by the NHPUC. Rates adjusted semiannually and firm customers credited all supplier refunds and capacity credits derived from interruptible sales and transportation and capacity release sales.
Local Delivery Adjustment Clause – Conservation Charges	Rate adjusted on an annual basis and applicable to firm sales and firm delivery throughput in order to recover costs and lost margins associated with the company's conservation and demand side management programs.
Local Delivery Adjustment Clause – Environmental Surcharges	Rate adjusted on an annual basis and applicable to firm sales and firm delivery throughput in order to recover expenditures associated with former manufactured gas programs including investigation, testing, remediation, litigation expenses, and other liabilities (not to exceed 5% of the company's total revenues from firm gas sales and delivery throughput during the preceding 12-month period ending June 30, under-recovered amounts deferred until next recovery period including interest). ES also includes expenses incurred by the company in pursuing insurance and third-party claims and any recoveries or other benefits received by the company as a result of such claims.
Local Delivery Adjustment Clause – Gas Restructuring Expenses	Allows the company to adjust its rates on an annual basis for the recovery of Commission-approved costs associated with the gas restructuring collaborative including carrying charges (Docket DE 98-124). Costs include, but are not limited to, any legal, consulting, customer focus group(s) and survey(s), customer education campaign(s), materials and advertising.
Local Delivery Adjustment Clause – Rate Case Expenses	Allows the company to adjust its rates for the recovery of Commission-approved rate case expenses including carrying charges and the reconciliation of temporary rates. Rate case expenses include legal expenses, costs for bill inserts, costs for legal notices, consulting fees, processing expenses, and other approved expenses. Temporary rate reconciliation includes the variance between the delivery revenues obtained from rates prescribed in the temporary rate order and the delivery revenues obtained from the final rates approved by the NHPUC.
Local Delivery Adjustment Clause – Residential Low Income Assistance Program Costs	Allows the company to recover the revenue shortfall (costs) including carrying charges associated with customers participating in the Residential Low Income Assistance Program as well as associated administrative and marketing costs.

SIZE PREMIUM CALCULATION

Company Name (Ticker)	Ticker	Customers (Mil) [1]	Market Cap ($Bil) [2]	Market-to-Book Ratio [3]
AGL Resources	AGL	2.3	$ 2.73	1.54
Laclede Group	LG	0.6	$ 0.72	1.35
Nicor Inc.	GAS	2.2	$ 1.83	1.83
Northwest Nat. Gas	NWN	0.7	$ 1.15	1.79
Piedmont Natural Gas	PNY	1.0	$ 1.88	2.03
South Jersey Industries	SJI	0.3	$ 1.14	2.17
Southwest Gas	SWX	1.8	$ 1.24	1.17
WGL Holdings, Inc.	WGL	1.1	$ 1.59	1.41
MEDIAN		1.0	$ 1.42	1.67
MEAN		1.2	$ 1.54	1.66

	Customers (Mil) [1]	($Bil) [4]
National Grid NH Equity	0.09	$ 0.085
Average Market-to-Book for Proxy Group		$ 1.660
National Grid NH Implied Market Cap		$ 0.140

Market Capitalization (in $millions)

Decile	Low	High	Size Premium [5]
2	$ 7,434.806	$ 18,503.467	0.62%
3	$ 4,229.323	$ 7,360.271	0.74%
4	$ 2,785.698	$ 4,225.152	0.97%
5	$ 1,849.950	$ 2,785.538	1.54%
6	$ 1,198.013	$ 1,848.961	1.63%
7	$ 753.676	$ 1,197.133	1.62%
8	$ 453.398	$ 753.448	2.35%
9	$ 218.743	$ 453.254	2.71%
10	$ 1.575	$ 218.533	5.81%
Proxy Group Median		$ 1,417.45	1.63%
Proxy Group Low		$ 717.79	2.35%
Difference from Proxy Group Median			0.72% [6]

Notes:
[1] Source: Form 10-Ks. Includes electric and gas.
[2] Source: Bloomberg. Market capitalization as of 1/29/2010
[3] Source: Bloomberg. Price-to-book ratio as of 1/29/2010
[4] Provided by Company
[5] Source: Ibbotson Associates
[6] Equals 2.20% - 1.50%

FLOTATION COST ADJUSTMENT

Flotation Costs (two most recent common stock issuances per company, if available)

Date	Issuing Entity	Shares Issued	Offering Price	Underwriting Discount	Offering Expense	Net Proceeds Per Share	Total Flotation Costs	Gross Equity Issue before Costs	Net Proceeds	Flotation Cost Percentage
Open Market Issuances										
1/13/2003	KeySpan Corp.	13,900,000	$34.50	$0.430	$600,000	$34.027	$6,577,000	$479,550,000	$472,973,000	1.371%
11/19/2004	AGL Resources Inc.	9,600,000	$31.01	$0.930	$400,000	$30.038	$9,328,000	$297,696,000	$288,368,000	3.133%
2/11/2003	AGL Resources Inc.	5,600,000	$22.00	$0.770	$250,000	$21.185	$4,562,000	$123,200,000	$118,638,000	3.703%
5/25/2004	Laclede Group, Inc.	1,500,000	$26.80	$0.871	$100,000	$25.862	$1,406,500	$40,200,000	$38,793,500	3.499%
4/29/1999	Laclede Group, Inc.	1,100,000	$20.19	$0.800	$150,000	$19.251	$1,030,000	$22,206,250	$21,176,250	4.638%
4/5/2004	Northwest Natural Gas Co.	1,200,000	$31.00	$1.010	$175,000	$29.844	$1,387,000	$37,200,000	$35,813,000	3.728%
1/23/2004	Piedmont Natural Gas Co.	4,250,000	$42.500	$1.490	$350,000	$40.928	$6,682,500	$180,625,000	$173,942,500	3.700%
3/16/2006	Southwest Gas Corp.	1,629,844 [i]	$27.610	$0.307	$500,000	$27.303	$500,000	$45,000,000	$44,500,000	1.111%
8/5/1998	Southwest Gas Corp.	2,500,000	$23.250	$0.780	$200,000	$22.390	$2,150,000	$58,125,000	$55,975,000	3.699%
6/26/2001	WGL Holdings, Inc.	1,790,000	$26.730	$0.895	$56,218	$25.804	$1,658,268	$47,846,700	$46,188,432	3.466%
Weighted Average Flotation Costs							$35,281,268	$1,331,648,950	$1,296,367,682	2.649%
								FLOTATION COSTS		2.649%

Flotation Cost Adjustment

		[1] Annualized Dividend	[2] Stock Price	[3] Dividend Yield	[4] Expected Dividend Yield	[5] Expected Dividend Yield Adjusted for Flotation Costs	[6] Zacks EPS Growth	[7] Value Line EPS Growth	[8] First Call EPS Growth	[9] Retention Growth BR + SV	[10] Average Growth Estimate	[11] DCF k(e)	[12] Flotation Adjusted DCF k(e)
NATURAL GAS UTILITIES:													
AGL	AGL Resources Inc.	$1.72	$36.45	4.72%	4.82%	4.95%	4.50%	3.50%	4.00%	5.09%	4.27%	9.09%	9.22%
LG	Laclede Group, Inc.	$1.58	$33.36	4.74%	4.83%	4.97%	3.00%	3.50%	3.50%	6.56%	4.14%	8.97%	9.11%
GAS	Nicor Inc.	$1.86	$41.95	4.43%	4.51%	4.64%	4.20%	1.50%	4.35%	4.32%	3.59%	8.11%	8.23%
NWN	Northwest Natural Gas Co.	$1.66	$44.76	3.71%	3.81%	3.91%	5.70%	5.00%	6.00%	5.29%	5.50%	9.31%	9.41%
PNY	Piedmont Natural Gas Co.	$1.08	$26.42	4.09%	4.22%	4.34%	6.30%	8.00%	7.00%	4.61%	6.48%	10.70%	10.81%
SJI	South Jersey Industries, Inc.	$1.32	$38.46	3.43%	3.59%	3.69%	12.40%	5.50%	11.67%	7.73%	9.32%	12.92%	13.01%
SWX	Southwest Gas Corp.	$0.95	$28.60	3.32%	3.42%	3.51%	7.00%	6.00%	6.00%	4.01%	5.75%	9.17%	9.26%
WGL	WGL Holdings, Inc.	$1.47	$33.05	4.45%	4.55%	4.67%	N/A	4.00%	5.00%	4.39%	4.46%	9.01%	9.14%
MEDIAN					4.37%	4.49%	5.70%	4.50%	5.50%	4.85%	4.98%	9.13%	9.24%

FLOTATION ADJUSTED MEDIAN CONSTANT GROWTH DCF RESULT	9.24%	
UNADJUSTED MEDIAN CONSTANT GROWTH DCF RESULT	9.13%	
DIFFERENCE (FLOTATION COST ADJUSTMENT)	0.11%	[13]

Notes:
[i] Assumes 10% of shares outstanding at March 1, 2006

Notes on Flotation Cost Adjustment Calculation:
[1] Source: Bloomberg
[2] Source: Bloomberg, 30-day average
[3] = [1] / [2] or [Annualized Dividend] / [Price]
[4] = [3] x [1+ .5g] or [Dividend Yield] x [1 + (.5 x average growth rate)]
[5] = [4] / [1 - 0.0265] or [Expected Dividend Yield] / [1- Flotation Cost Percentage]
[6] Source: Zacks.com
[7] Source: Value Line
[8] Source: Yahoo! Finance
[9] Source: Value Line, See Attachment RBH-3
[10] Average of columns [6], [7], [8]
[11] = (Column [4] + Column [10])
[12] = (Column [5] + Column [10])
[13] Equals median Adjusted DCF, Column [12] - Median Unadjusted DCF, Column [11]