Table 7-3
Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
Largest and Smallest Company by Size Group

from 1926 to1965

	Capitalization of Largest Company (in thousands)			Capitalization of Smallest Company (in thousands)		
Date (Sept 30)	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1926	$60,103	$13,795	$4,213	$13,800	$4,263	$43
1927	$64,820	$14,491	$4,415	$14,522	$4,450	$65
1928	$90,910	$18,761	$5,074	$18,768	$5,119	$135
1929	$103,054	$24,328	$5,862	$24,480	$5,973	$118
1930	$66,750	$12,918	$3,359	$13,050	$3,369	$30
1931	$42,607	$8,142	$1,927	$8,222	$1,944	$15
1932	$12,212	$2,208	$469	$2,223	$469	$19
1933	$40,298	$7,210	$1,830	$7,280	$1,875	$120
1934	$38,019	$6,638	$1,673	$6,669	$1,691	$69
1935	$37,631	$6,549	$1,350	$6,605	$1,383	$38
1936	$46,963	$11,505	$2,754	$11,526	$2,800	$98
1937	$51,750	$13,635	$3,639	$13,793	$3,563	$68
1938	$35,019	$8,372	$2,195	$8,400	$2,200	$60
1939	$35,409	$7,478	$1,819	$7,500	$1,854	$75
1940	$29,903	$7,990	$1,861	$8,007	$1,872	$51
1941	$30,352	$8,316	$2,026	$8,336	$2,087	$72
1942	$26,037	$6,868	$1,770	$6,870	$1,775	$82
1943	$42,721	$11,403	$3,847	$11,475	$3,903	$395
1944	$46,221	$13,055	$4,812	$13,068	$4,820	$309
1945	$55,125	$17,325	$6,413	$17,575	$6,428	$225
1946	$77,764	$24,192	$10,149	$24,199	$10,188	$829
1947	$57,830	$17,719	$6,373	$17,735	$6,380	$508
1948	$67,238	$19,632	$7,329	$19,651	$7,348	$683
1949	$56,682	$14,849	$5,037	$14,577	$5,109	$379
1950	$68,143	$18,675	$6,225	$18,700	$6,243	$303
1951	$82,517	$22,750	$7,598	$22,668	$7,600	$669
1952	$95,636	$25,405	$8,428	$25,452	$8,480	$480
1953	$98,216	$25,340	$8,158	$25,374	$8,168	$459
1954	$125,834	$29,707	$8,468	$29,791	$8,502	$463
1955	$170,829	$41,445	$12,366	$41,581	$12,444	$553
1956	$183,792	$46,805	$13,524	$46,888	$13,623	$1,122
1957	$194,300	$47,658	$13,844	$48,609	$13,848	$925
1958	$195,536	$46,774	$13,789	$46,871	$13,816	$550
1959	$256,283	$64,110	$19,548	$64,221	$19,701	$1,804
1960	$252,292	$61,485	$19,293	$61,529	$19,344	$931
1961	$296,251	$77,983	$23,562	$77,998	$23,613	$2,455
1962	$250,788	$58,785	$18,952	$58,868	$18,968	$1,016
1963	$308,903	$71,846	$23,927	$71,971	$24,056	$296
1964	$349,675	$79,508	$25,595	$79,837	$25,607	$223
1965	$365,675	$84,600	$28,483	$85,065	$28,543	$250

Table 7-3 (continued)
Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
Largest and Smallest Company by Size Group

from 1956 to 2007

	Capitalization of Largest Company (in thousands)			Capitalization of Smallest Company (in thousands)		
Date (Sept 30)	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10	Mid-Cap 3-5	Low-Cap 6-8	Micro-Cap 9-10
1956	$403,137	$99,960	$34,884	$100,107	$34,966	$381
1957	$459,438	$118,988	$42,188	$119,535	$42,237	$381
1958	$531,306	$150,893	$60,543	$151,260	$60,719	$592
1959	$518,485	$146,792	$54,353	$147,311	$54,503	$2,119
1960	$382,684	$94,754	$29,916	$94,845	$29,932	$822
1961	$551,690	$147,426	$45,570	$147,810	$45,571	$865
1962	$557,181	$143,935	$46,728	$144,263	$45,757	$1,031
1963	$431,354	$96,699	$29,352	$96,710	$29,430	$561
1964	$356,876	$79,878	$23,355	$80,280	$23,400	$444
1965	$477,054	$102,313	$30,353	$103,283	$30,394	$546
1966	$566,296	$121,717	$34,864	$121,992	$34,901	$564
1967	$584,577	$139,196	$40,700	$139,620	$40,765	$513
1968	$580,881	$164,093	$47,927	$164,455	$48,038	$830
1969	$665,019	$177,379	$51,197	$177,769	$51,274	$948
1970	$762,195	$189,312	$50,496	$189,315	$50,544	$549
1971	$952,397	$264,690	$72,104	$264,783	$72,450	$1,446
1972	$770,517	$210,301	$55,336	$210,530	$55,423	$1,060
1973	$1,209,911	$353,669	$104,362	$356,238	$104,588	$2,025
1974	$1,075,436	$315,965	$91,004	$316,103	$91,195	$2,093
1975	$1,440,436	$370,224	$94,875	$370,729	$94,887	$760
1976	$1,857,621	$449,015	$110,617	$449,462	$110,953	$706
1977	$2,059,143	$468,948	$113,419	$470,662	$113,430	$1,277
1978	$1,957,926	$421,340	$94,449	$421,675	$94,573	$695
1979	$2,145,947	$480,975	$100,285	$483,623	$100,384	$95
1980	$2,171,217	$474,065	$93,750	$474,477	$93,790	$132
1981	$2,129,663	$457,958	$87,586	$459,053	$87,733	$278
1982	$2,428,671	$500,327	$103,352	$500,346	$103,509	$510
1983	$2,705,192	$603,586	$137,105	$607,449	$137,137	$502
1984	$2,470,244	$596,059	$148,104	$597,975	$148,216	$598
1985	$2,789,938	$647,210	$155,386	$647,253	$155,532	$89
1986	$3,142,657	$751,316	$193,001	$751,680	$193,016	$1,043
1987	$3,484,440	$813,923	$228,900	$814,355	$229,058	$585
1988	$4,216,707	$925,688	$252,553	$926,215	$253,031	$1,671
1989	$4,251,741	$875,309	$220,397	$875,582	$220,456	$1,502
2000	$4,143,902	$840,000	$192,083	$840,730	$192,439	$1,393
2001	$5,156,315	$1,108,224	$265,734	$1,108,969	$265,735	$443
2002	$4,930,326	$1,118,525	$308,980	$1,124,331	$309,245	$501
2003	$4,744,580	$1,163,369	$329,060	$1,163,423	$329,529	$332
2004	$6,241,953	$1,607,854	$505,437	$1,607,831	$506,410	$1,393
2005	$7,187,244	$1,728,888	$586,393	$1,729,364	$587,243	$1,079
2006	$7,777,183	$1,946,588	$676,955	$1,947,240	$677,017	$2,247
2007	$9,206,713	$2,411,794	$723,258	$2,413,583	$725,257	$1,922

Table 7-4‡
Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, Summary Statistics of Annual Returns 1926–2007

Decile	Geometric Mean	Arithmetic Mean	Standard Deviation	Serial Correlation
1-Largest	9.6	11.3	18.91	0.08
2	10.9	13.2	21.62	0.04
3	11.3	13.7	23.31	-0.03
4	11.1	14.1	25.58	-0.01
5	11.7	14.8	26.49	-0.02
6	11.7	15.1	27.10	0.03
7	11.6	15.5	28.47	0.01
8	11.8	16.6	34.18	0.05
9	11.9	17.9	36.45	0.04
10-Smallest	13.6	21.0	44.58	0.16
Mid-Cap, 3–5	11.3	14.0	24.42	-0.02
Low-Cap, 6–8	11.7	15.5	29.03	0.03
Micro-Cap, 9–10	12.5	18.5	38.84	0.08
NYSE/AMEX/NASDAQ Total Value-Weighted Index	10.1	12.0	19.94	0.03

Aspects of the Firm Size Effect

The firm size phenomenon is remarkable in several ways. First, the greater risk of small stocks does not, in the context of the capital asset pricing model (CAPM), fully account for their higher returns over the long term. In the CAPM only systematic, or beta risk, is rewarded; small company stocks have had returns in excess of those implied by their betas.

Second, the calendar annual return differences between small and large companies are serially correlated. This suggests that past annual returns may be of some value in predicting future annual returns. Such serial correlation, or autocorrelation, is practically unknown in the market for large stocks and in most other equity markets but is evident in the size premia.

Third, the firm size effect is seasonal. For example, small company stocks outperformed large company stocks in the month of January in a large majority of the years. Such predictability is surprising and suspicious in light of modern capital market theory. These three aspects of the firm size effect—long-term returns in excess of systematic risk, serial correlation, and seasonality—will be analyzed thoroughly in the following sections.

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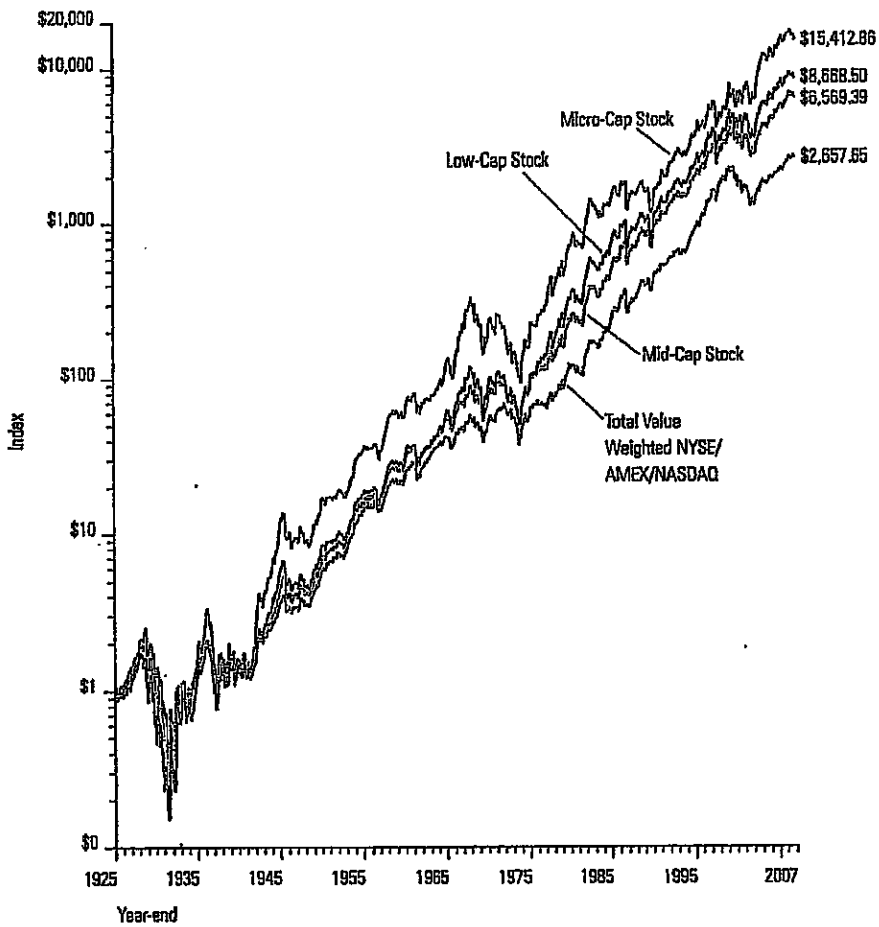
Graph 7-1[1]
Size-Decile Portfolios of the NYSE/AMEX/NASDAQ: Wealth Indices of Investments in Mid-, Low-, Micro- and Total Capitalization Stocks
Year-end 1925 = $1.00

1925–2007



Long-Term Returns in Excess of Systematic Risk

The capital asset pricing model (CAPM) does not fully account for the higher returns of small company stocks. Table 7-5 shows the returns in excess of systematic risk over the past 82 years for each decile of the NYSE/AMEX/NASDAQ. Recall that the CAPM is expressed as follows:

$$k_s = r_f + (\beta_s \times ERP)$$

Table 7-5 uses the CAPM to estimate the return in excess of the riskless rate and compares this estimate to historical performance. According to the CAPM, the expected return on a security should consist of the riskless rate plus an additional return to compensate for the systematic risk of the security. The return in excess of the riskless rate is estimated in the context of the CAPM by multiplying the equity risk premium by β (beta). The equity risk premium is the return that compensates investors for taking on risk equal to the risk of the market as a whole (systematic risk).[2] Beta measures the extent to which a security or portfolio is exposed to systematic risk.[3] The beta of each decile indicates the degree to which the decile's return moves with that of the overall market.

A beta greater than one indicates that the security or portfolio has greater systematic risk than the market; according to the CAPM equation, investors are compensated for taking on this additional risk. Yet, Table 7-5 illustrates that the smaller deciles have had returns that are not fully explained by their higher betas. This return in excess of that predicted by CAPM increases as one moves from the largest companies in decile 1 to the smallest in decile 10. The excess return is especially pronounced for micro-cap stocks (deciles 9–10). This size-related phenomenon has prompted a revision to the CAPM, which includes a size premium. Chapter 4 presents this modified CAPM theory and its application in more detail.

This phenomenon can also be viewed graphically, as depicted in the Graph 7-2. The security market line is based on the pure CAPM without adjustment for the size premium. Based on the risk (or beta) of a security, the expected return lies on the security marker line. However, the actual historic returns for the smaller deciles of the NYSE/AMEX/NASDAQ lie above the line, indicating that these deciles have had returns in excess of that which is appropriate for their systematic risk.

2 The equity risk premium is estimated by the 82-year arithmetic mean return on large company stocks, 12.26 percent, less the 82-year arithmetic mean income-return component of 20-year government bonds as the historical riskless rate, in this case 5.22 percent. (It is appropriate, however, to match the maturity, or duration, of the riskless asset with the investment horizon.) See Chapter 5 for more detail on equity risk premium estimation.

3 Historical betas were calculated using a simple regression of the monthly portfolio (decile) total returns in excess of the 30-day U.S. Treasury bill total returns versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2007. See Chapter 6 for more detail on beta estimation.

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Table 7-5[‡]
Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ
1926–2007

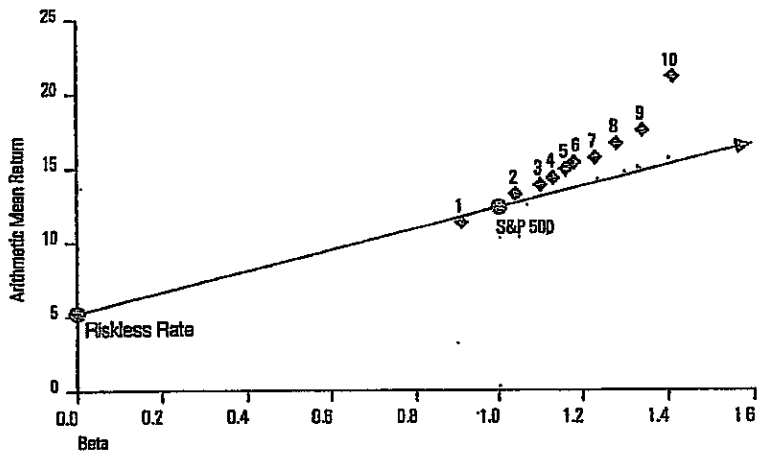
Decile	Beta*	Arithmetic Mean Return	Realized Return in Excess of Riskless Rate**	Estimated Return in Excess of Riskless Rate†	Size Premium (Return in Excess of CAPM)
1-Largest	0.91	11.31%	6.10%	6.45%	-0.34%
2	1.03	13.16%	7.95%	7.27%	0.68%
3	1.10	13.72%	8.51%	7.75%	0.76%
4	1.12	14.07%	8.86%	7.93%	0.93%
5	1.16	14.85%	9.64%	8.17%	1.47%
6	1.18	15.14%	9.93%	8.33%	1.60%
7	1.24	15.46%	10.26%	8.76%	1.50%
8	1.30	16.58%	11.38%	9.18%	2.20%
9	1.35	17.26%	12.07%	9.51%	2.56%
10-Smallest	1.41	20.93%	15.77%	9.95%	5.82%
Mid-Cap, 3–5	1.12	14.01%	8.81%	7.88%	0.92%
Low-Cap, 6–8	1.22	15.49%	10.29%	8.64%	1.65%
Micro-Cap, 9–10	1.36	18.46%	13.25%	9.59%	3.65%

*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2007.

**Historical riskless rate is measured by the 62-year arithmetic mean income return component of 20-year government bonds (5.21 percent)

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12.26 percent) minus the arithmetic mean income return component of 20-year government bonds (5.21 percent) from 1926–2007.

Graph 7-2[‡]
Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ
1926–2007



Further Analysis of the 10th Decile

The size premia presented thus far do a great deal to explain the return due solely to size in publicly traded companies. However, by splitting the 10th decile into two size groupings we can get a closer look at the smallest companies. This magnification of the smallest companies will demonstrate whether the company size to size premia relationship continues to hold true.

As previously discussed, the method for determining the size groupings for size premia analysis was to take the stocks traded on the NYSE and break them up into 10 deciles, after which stocks traded on the AMEX and NASDAQ were allocated into the same size groupings. This same methodology was used to split the 10th decile into two parts: 10a and 10b, with 10b being the smaller of the two. This is equivalent to breaking the stocks down into 20 size groupings, with portfolios 19 and 20 representing 10a and 10b.

Table 7-7 shows that the pattern continues; as companies get smaller their size premium increases. There is a noticeable increase in size premium from 10a to 10b, which can also be demonstrated visually in Graph 7-3. This can be useful in valuing companies that are extremely small. Table 7-6 presents the size, composition, and breakpoints of deciles 10a and 10b. First, the recent number of companies and total decile market capitalization are presented. Then the largest company and its market capitalization are presented.

Breaking the smallest decile down lowers the significance of the results compared to results for the 10th decile taken as a whole, however. The same holds true for comparing the 10th decile with the Micro-Cap aggregation of the 9th and 10th deciles. The more stocks included in a sample the more significance can be placed on the results. While this is not as much of a factor with the recent years of data, these size premia are constructed with data back to 1926. By breaking the 10th decile down into smaller components we have cut the number of stocks included in each grouping. The change over time of the number of stocks included in the 10th decile for the NYSE/AMEX/NASDAQ is presented in Table 7-8. With fewer stocks included in the analysis early on, there is a strong possibility that just a few stocks can dominate the returns for those early years.

While the number of companies included in the 10th decile for the early years of our analysis is low, it is not too low to still draw meaningful results even when broken down into subdivisions 10a and 10b. All things considered, size premia developed for deciles 10a and 10b are significant and can be used in cost of capital analysis. These size premia should greatly enhance the development of cost of capital analysis for very small companies.

Table 7-5‡
Size-Decile Portfolios 10a and 10b of the NYSE/AMEX/NASDAQ, Largest Company and Its Market Capitalization
September 30, 2007

Decile	Recent Number of Companies	Recent Decile Market Capitalization (in thousands)	Market Capitalization of Largest Company (in thousands)	Company Name
10a	385	108,458,780	383,479	Emergency Medical Services Corp.
10b	1,405	143,681,297	211,590	Miller Industries Inc., Tenn.

Note: These numbers may not aggregate to equal decile 10 figures

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Table 7-7[1]
Long-Term Returns in Excess of CAPM Estimation for Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926–2007

	Beta*	Arithmetic Mean Return	Realized Return in Excess of Riskless Rate**	Estimated Return in Excess of Riskless Rate†	Size Premium (Return in Excess of CAPM)
1-Largest	0.91	11.31%	6.10%	6.45%	-0.34%
2	1.03	13.16%	7.95%	7.27%	0.68%
3	1.10	13.72%	8.51%	7.75%	0.76%
4	1.12	14.07%	8.86%	7.93%	0.93%
5	1.16	14.85%	9.64%	8.17%	1.47%
6	1.18	15.14%	9.93%	8.33%	1.60%
7	1.24	15.46%	10.26%	8.76%	1.50%
8	1.30	16.58%	11.38%	9.18%	2.20%
9	1.35	17.28%	12.07%	9.51%	2.56%
10a	1.42	19.22%	14.01%	10.02%	3.99%
10b-Smallest	1.39	24.71%	19.50%	9.77%	9.73%
Mid-Cap, 3–5	1.12	14.01%	8.81%	7.88%	0.92%
Low-Cap, 6–8	1.22	15.43%	10.29%	8.64%	1.65%
Micro-Cap, 9–10	1.36	18.45%	13.25%	8.59%	3.65%

*Betas are estimated from monthly portfolio total returns in excess of the 30-day U.S. Treasury bill total return versus the S&P 500 total returns in excess of the 30-day U.S. Treasury bill, January 1926–December 2007.

**Historical riskless rate is measured by the 62-year arithmetic mean income return component of 20-year government bonds (5.21 percent)

†Calculated in the context of the CAPM by multiplying the equity risk premium by beta. The equity risk premium is estimated by the arithmetic mean total return of the S&P 500 (12.26 percent) minus the arithmetic mean income return component of 20-year government bonds (5.21 percent) from 1926–2007.

Graph 7-3[1]
Security Market Line versus Size-Decile Portfolios of the NYSE/AMEX/NASDAQ, with 10th Decile Split
1926-2007

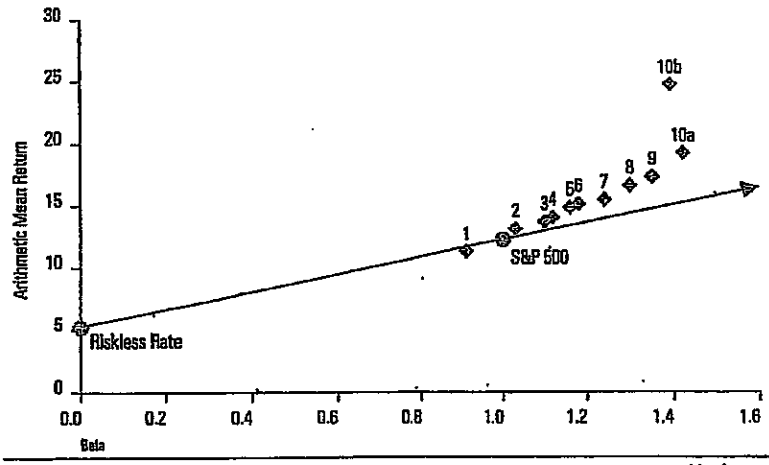

Table 7-8‡
Historical Number of Companies for NYSE/AMEX/NASDAQ Decile 10

Sept.	Number of Companies
1926	52*
1930	72
1940	78
1950	100
1960	109
1970	865
1980	885
1990	1,814
2000	1,927
2005	1,748
2006	1,744
2007	1,775

*The fewest number of companies was 49 in March, 1926

Alternative Methods of Calculating the Size Premia

The size premia estimation method presented above makes several assumptions with respect to the market benchmark and the measurement of beta. The impact of these assumptions can best be examined by looking at some alternatives. In this section we will examine the impact on the size premia of using a different market benchmark for estimating the equity risk premia and beta. We will also examine the effect on the size premia study of using sum beta or an annual beta.[4]

Changing the Market Benchmark

In the original size premia study, the S&P 500 is used as the market benchmark in the calculation of the realized historical equity risk premium and of each size group's beta. The NYSE total value-weighted index is a common alternative market benchmark used to calculate beta. Table 7-9 uses this market benchmark in the calculation of beta. In order to isolate the size effect, we require an equity risk premium based on a large company stock benchmark. The NYSE deciles 1–2 large company index offers a mutually exclusive set of portfolios for the analysis of the smaller company groups: mid-cap deciles 3–5, low-cap deciles 6–8, and micro-cap deciles 9–10. The size premia analyses using these benchmarks are summarized in Table 7-9 and depicted graphically in Graph 7-4.

For the entire period analyzed, 1926–2007, the betas obtained using the NYSE total value-weighted index are higher than those obtained using the S&P 500. Since smaller companies had higher betas using the NYSE benchmark, one would expect the size premia to shrink. However, as was illustrated in Chapter 5, the equity risk premium calculated using the NYSE deciles 1–2 benchmark results in a value of 6.35, as opposed to 7.05 when using the S&P 500. The effect of the higher betas and lower equity risk premium cancel each other out, and the resulting size premia in Table 7-9 are slightly higher than those resulting from the original study.

4 Sum beta is the method of beta estimation described in Chapter 6 that was developed to better account for the lagged reaction of small stocks to market movements. The sum beta methodology was developed for the same reason that the size premia were developed; small company betas were too small to account for all of their excess returns.

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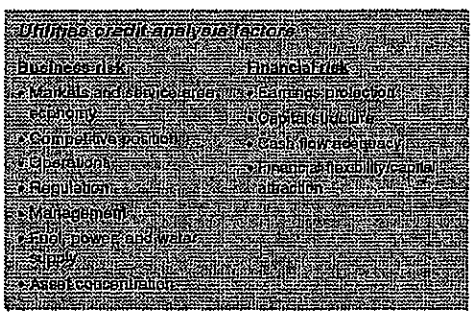
The utilities rating methodology encompasses two basic components: business risk analysis and financial analysis. Evaluation of industry characteristics, the utility's position within that industry, its regulation, and its management provides the context for assessing a firm's financial condition.

Historical analysis is a tool for identifying strengths and weaknesses, and provides a starting point for evaluating financial condition. Business position assessment is the qualitative measure of a utility's fundamental creditworthiness. It focuses on the forces that will shape the utilities' future.



The credit analysis of utilities is quickly evolving, as utilities are treated less as regulated monopolies and more as entities faced with a host of challengers in a competitive environment. Marketplace dynamics are supplanting the power of regulation, making it critically important to reduce costs and/or market new services in order to thwart competitors' inroads.

Markets and service area economy

Assessing service territory begins with the economic and demographic evaluation of the area in which the utility has its franchise. Strength of long-term demand for the product is examined from a macroeconomic perspective. This enables Standard & Poor's to evaluate the affordability of rates and the staying power of demand.

Standard & Poor's tries to discern any secular consumption trends and, more importantly, the reasons for them. Specific items examined include the size and growth rate of the market, strength of the franchise, historical and projected sales growth, income levels and trends in population, employment, and per capita income. A utility with a healthy economy and customer base—as illustrated by diverse employment opportunities, average or above-average wealth and income statistics, and low unemployment—will have a greater capacity to support its operations.

For electric and gas utilities, distribution by customer class is scrutinized to assess the depth and diversity of the utility's customer mix. For example, heavy industrial concentration is viewed cautiously, since a utility may have significant exposure to cyclical volatility. Alternatively, a large residential component yields a stable and more predictable revenue stream. The largest utility customers are identified to determine their importance to the bottom line and assess the risk of their loss and potential adverse effect on the utility's financial position. Credit concerns arise when individual customers represent more than 5% of revenues. The company or industry may play a significant role in the overall economic base of the service area. Moreover, large customers may turn to cogeneration or alternative power supplies to meet their energy needs, potentially leading to reduced cash flow for the utility (even in cases where a large customer pays discounted rates and is not a profitable account for the utility). Customer concentration is less significant for water and telecommunication utilities.

Competitive position

As competitive pressures have intensified in the utilities industry, Standard & Poor's analysis has deepened to include a more thorough review of competitive position.

Electric utility competition

For electric utilities, competitive factors examined include: percentage of firm wholesale revenues that are most vulnerable to competition; industrial load concentration; exposure of key customers to alternative suppliers; commercial concentrations; rates for various customer classes; rate design and flexibility; production costs, both marginal and fixed; the regional capacity situation; and transmission constraints. A regional focus is evident, but high costs and rates relative to national averages are also of significant concern because of the potential for electricity substitutes over time.

Mounting competition in the electric utility industry derives from excess generating capacity, lower barriers to entering the electric generating business, and marginal costs that are below embedded costs. Standard & Poor's has already witnessed declining prices in wholesale markets, as *de facto* retail competition is already being seen in several parts of the country. Standard & Poor's believes that over the coming years more and more customers will want and demand lower prices. Initial concerns focus on the largest industrial loads, but other customer classes will be increasingly vulnerable. Competition will not necessar-

fly be driven by legislation. Other pressures will arise from global competition and improving technologies, whether it be the declining cost of incremental generation or advances in transmission capacity or substitute energy sources like the fuel cell. It is impossible to say precisely when *wide-open* retail competition will *occur*; this will be evolutionary. However, significantly greater competition in retail markets is inevitable.

Gas utility competition

Similarly, gas utilities are analyzed with regard to their competitive standing in the three major areas of demand: residential, commercial, and industrial. Although regulated as holders of monopoly power, natural gas utilities have for some time been actively competing for energy market share with fuel oil, electricity, coal, solar, wood, etc. The long-term staying power of market demand for natural gas cannot be taken for granted. In fact, as the electric utility industry restructures and reduces costs, electric power will become more cost competitive and threaten certain gas markets. In addition, independent gas marketers have made greater inroads behind the city gate and are competing for large gas users. Moreover, the recent trend by state regulators to unbundle utility services is creating opportunities for outsiders to market niche products. Distributors still have the upper hand, but those who do not reduce and control costs, and thus rates, could find competition even more difficult.

Natural gas pipelines are judged to carry a somewhat higher business risk than distribution companies because they face competition in every one of their markets. To the extent a pipeline serves utilities versus industrial end users, its stability is greater. Over the next five years, pipeline competition will heat up since many service contracts with customers are expiring. Most distributor or end-use customers are looking to reduce pipeline costs and are working to improve their load factor to do so. Thus, pipelines will likely find it difficult to recontract all capacity in coming years. Being the pipeline of choice is a function of attractive transportation rates, diversity and quality of services provided, and capacity available in each particular market. In all cases though, periodic discounting of rates to retain customers will occur and put pressure on profitability.

Water utility competition

As the last true utility monopoly, water utilities face very little competition and there is currently no challenge to the continuation of franchise areas. The only exceptions have been cases where investor-owned water companies have been subject to condemnation and municipalization because of poor service or political motivations. In that regard, Standard & Poor's pays close attention to costs and rates in relation to neighboring utilities and national averages. (In contrast, the privatization of public water facilities has begun, albeit at a slower pace than anticipated. This is occurring mostly in the form of operating contracts and public/private partnerships, and not in asset transfers. This trend should continue as cities look for ways to balance their tight budgets.) Also, water utilities are not fully immune to the forces of competition; in a few instances wholesale customers can access more than one supplier.

Telephone competition

The Telecommunications Act of 1996 accelerates the continuing challenge to the local exchange companies' (LECs) century-old monopoly in the local loop. Competitive access providers (CAPs), both facilities-based and resellers, are aggressively pursuing customers, generally targeting metropolitan areas, and promising lower rates and better service.

Most long-distance calls are still originated and terminated on the local telephone company network. To complete such a call, the long-distance provider (including AT&T, MCI, Sprint and a host of smaller interexchange carriers or "IXCs") must pay the local telephone company a steep "access" fee to compensate the local phone company for the use of its local network. CAPs, in contrast, build or lease facilities that directly connect customers to their long-distance carrier, bypassing the local telephone company and avoiding access fees, and thereby can offer lower long-distance rates. But the LECs are not standing still; they are combating the loss of business to CAPs by lowering access fees, thereby reducing the economic incentive for a high usage long-distance customer to use a CAP. LECs are attempting to make up for the loss of revenues from lower access fees by increasing basic local service rates (or at least not lowering them), since basic service is far less subject to competition. LECs are improving operating efficiency and marketing high margin, value-added new services. Additionally, in the wake of the Telecommunications Act, LECs will capture at least some of the inter-LATA long-distance market. As a result of these initiatives, LECs continue to rebuild themselves—from the traditional utility monopoly to leaner, more marketing oriented organizations.

While LECs, and indeed all segments of the telecommunications sector, face increasing competition, there are favorable industry factors that tend to offset heightened business risk and auger for overall ratings stability for most LECs. Importantly, telecommunications is a declining-cost business. With increased deployment of fiber optics, the cost of transport has fallen dramatically and digital switching hardware and software have yielded more capable, trouble-free and cost-efficient networks. As a result, the cost of network maintenance has dropped sharply, as illustrated by the ratio of employees per 10,000 access lines, an oft-cited measurement of efficiency. Ratios as low as 25 employees per 10,000 lines are being seen, down from the typical 40 or more employees per 10,000 ratio of only a few years ago.

In addition, networks are far more capable. They are increasingly digitally switched and able to accommodate high-speed communications. The infrastructure needed to accommodate switched broadband services will be built into telephone networks over the next few years. These advanced networks will enable telephone companies to look to a greater variety of high-margin, value-added serv-

ices. In addition to those current services such as call waiting or caller ID, the delivery of hundreds of broadcast and interactive video channels will be possible. While these services offer the potential of new revenue streams, they will simultaneously present a formidable challenge. LECs will be entering the new (to them) arena of multimedia entertainment and will have to develop expertise in marketing and entertainment programming acumen; such skills stand in sharp contrast to LECs' traditional strengths in engineering and customer service.

Operations

Standard & Poor's focuses on the nature of operations from the perspective of cost, reliability, and quality of service. Here, emphasis is placed on those areas that require management attention in terms of time or money and which, if unresolved, may lead to political, regulatory, or competitive problems.

Operations of electric utilities

For electrics, the status of utility plant investment is reviewed with regard to generating plant availability and utilization, and also for compliance with existing and contemplated environmental and other regulatory standards. The record of plant outages, equivalent availability, load factors, heat rates, and capacity factors are examined. Also important is efficiency, as defined by total megawatt hour per employee and customers per employee. Transmission interconnections are evaluated in terms of the number of utilities to which the utility in question has access, the cost structures and available generating capacity of these other utilities, and the price paid for wholesale power.

Because of mounting competition and the substantial escalation in decommissioning estimates, significant weight is given to the operation of nuclear facilities. Nuclear plants are becoming more vulnerable to high production costs that make their rates uneconomic. Significant asset concentration may expose the utility to poor performance, unscheduled outages or premature shutdowns, and large deferrals or regulatory assets that may need to be written off for the utility to remain competitive. Also, nuclear facilities tend to represent significant portions of their operators' generating capability and assets. The loss of a productive nuclear unit from both power supply and rate base can interrupt the revenue stream and create substantial additional costs for repairs and improvements and replacement power. The ability to keep these stations running smoothly and economically directly influences the ability to meet electric demand, the stability of revenues and costs, and, by extension, the ability to maintain adequate creditworthiness. Thus, economic operation, safe operation, and long-term operation are examined in depth. Specifically, emphasis is placed on operation and maintenance costs, busbar costs, fuel costs, refueling outages, forced outages, plant statistics, NRC evaluations, the potential need for repairs, operating licenses, decommissioning estimates and amounts held in external trusts, spent fuel storage capacity, and management's nuclear experience. In essence, favorable nuclear operations offer significant opportunities but, if a nuclear unit runs poorly or not at all, the attendant risks can be great.

Operations of gas utilities

For gas pipeline and distribution companies, the degree of plant utilization, the physical condition of the mains and lines, adequacy of storage to meet seasonal needs, "lost and unaccounted for" gas levels, and per-unit nongas operating and construction costs are important factors. Efficiency statistics such as load factor, operating costs per customer, and operating income per employee are also evaluated in comparison to other utilities and the industry as a whole.

Operations of water utilities

As a group, water utilities are continually upgrading their physical plant to satisfy regulations and to develop additional supply. Over the next decade, water systems will increasingly face the task of maintaining compliance, as drinking water regulations change and infrastructure ages. Given that the Safe Drinking Water Act was authorized in 1974, the first generation of treatment plants built to conform with these rules are almost 20 years old. Additionally, because the focus during this period was on satisfying environmental standards, deferred maintenance of distribution systems has been common, especially in older urban areas. The increasing cost of supplying treated water argues against the high level of unaccounted for water witnessed in the industry. Consequently, Standard & Poor's anticipates capital plans for rebuilding distribution lines and major renewal and replacement efforts aimed at treatment plants.

Operations of telephone companies

For telephone companies, cost-of-service analysis focuses on plant capability and measures of efficiency and quality of service. Plant capability is ascertained by looking at such parameters as percentage of digitally switched lines; fiber optic deployment, in particular in those portions of the plant key to network survival; and the degree of broadband capacity fiber and coaxial deployment and broadband switching capacity. Efficiency measures include operating margins, the ratio of employees per 10,000 access lines, and the extent of network and operations consolidation. Quality of service encompasses examination of quantitative measures, such as trouble reports and repeat service calls, as well as an assessment of qualitative factors, that may include service quality goals mandated by regulators.

Regulation

Regulatory rate-setting actions are reviewed on a case-by-case basis with regard to the potential effect on creditworthiness. Regulators' authorizing high rates of return is of little value unless the returns are earnable. Furthermore, allowing high returns based on noncash items does not benefit bondholders. Also, to be viewed positively, regulatory treatment should allow consistent performance from

period to period, given the importance of financial stability as a rating consideration.

The utility group meets frequently with commission and staff members, both at Standard & Poor's offices and at commission headquarters, demonstrating the importance Standard & Poor's places on the regulatory arena for credit quality evaluation. Input from these meetings and from review of rate orders and their impact weigh heavily in Standard & Poor's analysis.

Standard & Poor's does not "rate" regulatory commissions. State commissions typically regulate a number of diverse industries, and regulatory approaches to different types of companies often differ within a single regulatory jurisdiction. This makes it all but impossible to develop inclusive "ratings" for regulators.

Standard & Poor's evaluation of regulation also encompasses the administrative, judicial, and legislative processes involved in state and federal regulation. These can affect rate-setting activities and other aspects of the business, such as competitive entry, environmental and safety rules, facility siting, and securities sales.

As the utility industry faces an increasingly deregulated environment, alternatives to traditional rate-making are becoming more critical to the ability of utilities to effectively compete, maintain earnings power, and sustain creditor protection. Thus, Standard & Poor's focuses on whether regulators, both state and federal, will help or hinder utilities as they are exposed to greater competition. There is much that regulators can do, from allocating costs to more captive customers to allowing pricing flexibility—and sometimes just stepping out of the way.

Under traditional rate-making, rates and earnings are tied to the amount of invested capital and the cost of capital. This can sometimes reward companies more for justifying costs than for containing them. Moreover, most current regulatory policies do not permit utilities to be flexible when responding to competitive pressures of a deregulated market. Lack of flexible tariffs for electric utilities may lure large customers to wheel cheaper power from other sources.

In general, a regulatory jurisdiction is viewed favorably if it permits earning a return based on the ability to sustain rates at competitive levels. In addition to performance-based rewards or penalties, flexible plans could include market-based rates, price caps, index-based prices, and rates premised on the value of customer service. Such rates more closely mirror the competitive environment that utilities are confronting.

Electric industry regulation

The ability to enter into long-term arrangements at negotiated rates without having to seek regulatory approval for each contract is also important in the electric industry. (While contracting at reduced rates constrains financial performance, it lessens the potential adverse impact in the event of retail wheeling. Since revenue losses associated with this strategy are not likely to be recovered from ratepayers, utilities must control costs well enough to remain competitive if they are to sustain current levels of bondholder protection.)

Natural gas industry regulation

In the gas industry, too, several state commission policies weigh heavily in the evaluation of regulatory support. Examples include stabilization mechanisms to adjust revenues for changes in weather or the economy, rate and service unbundling decisions, revenue and cost allocation between sales and transportation customers, flexible industrial rates, and the general supportiveness of construction costs and gas purchases.

Water industry regulation

In all water utility activities, federal and state environmental regulations continue to play a critical role. The legislative timetable to effect the 1986 amendments to the Safe Drinking Water Act of 1974 was quite aggressive. But environmental standards-setting has actually slowed over the past couple of years due largely to increasing sentiment that the stringent, costly standards have not been justified on the basis of public health. A moratorium on the promulgation of significant new environmental rules is anticipated.

Telecommunications industry regulation

Despite the advances in telecommunications deregulation, analysis of regulation of telephone operators will continue to be a key rating determinant for the foreseeable future. The method of regulation may be either classic rate-based rate of return or some form of price cap mechanism. The most important factor is to assess whether the regulatory framework—no matter which type—provides sufficient financial incentive to encourage the rated company to maintain its quality of service and to upgrade its plant to accommodate new services while facing increasing competition from wireless operators and cable television companies.

Where regulators do still set tariffs based on an authorized return, Standard & Poor's strives to explore with regulators their view of the rate-of-return components that can materially impact reported versus regulatory earnings. Specifically these include the allowable base upon which the authorized return can be earned, allowable expenses, and the authorized return. Since regulatory oversight runs the gamut from strict, adversarial relationships with the regulated operating companies to highly supportive postures, Standard & Poor's probes beyond the apparent regulatory environment to ascertain the actual impact of regulation on the rated company.

Management

Evaluating the management of a utility is of paramount importance to the analytical process since management's abilities and decisions affect all areas of a company's operations. While regulation, the economy, and other outside factors can influence results, it is ultimately the quality of management that determines the success of a company.

With emerging competition, utility management will be more closely scrutinized by Standard & Poor's and will become an increasingly critical component of the credit evaluation. Management strategies can be the key determinant in differentiating utilities and in establishing where companies lie on the business position spectrum. It is imperative that managements be adaptable, aggressive, and proactive if their utilities are to be viable in the future; this is especially important for utilities that are currently uncompetitive.

The assessment of management is accomplished through meetings, conversations, and reviews of company plans. It is based on such factors as tenure, industry experience, grasp of industry issues, knowledge of customers and their needs, knowledge of competitors, accounting and financing practices, and commitment to credit quality. Management's ability and willingness to develop workable strategies to address their systems' needs, to deal with the competitive pressures of free market, to execute reasonable and effective long-term plans, and to be proactive in leading their utilities into the future are assessed. Management quality is also indicated by thoughtful balancing of public and private priorities, a record of credibility, and effective communication with the public, regulatory bodies, and the financial community. Boards of directors will receive ever more attention with respect to their role in setting appropriate management incentives.

With competition the watchword, Standard & Poor's also focuses on management's efforts to enhance financial condition. Management can bolster bondholder protection by taking any number of discretionary actions, such as selling common equity, lowering the common dividend payout, and paying down debt. Also important for the electric industry will be creativity in entering into strategic alliances and working partnerships that improve efficiency, such as central dispatching for a number of utilities or locking up at-risk customers through long-term contracts or expanded flexible pricing agreements. Proactive management teams will also seek alternatives to traditional rate-base, rate-of-return rate-making, move to adopt higher depreciation rates for generating facilities, segment customers by individual market preferences, and attempt to create superior service organizations.

In general, management's ability to respond to mounting competition and changes in the utility industry in a swift and appropriate manner will be necessary to maintain credit health.

Fuel, power, and water supply

Assessment of present and prospective fuel and power supply is critical to every electric utility analysis, while gauging the long-term natural gas supply position for gas pipeline and distribution companies and the water resources of a water utility is equally important. There is no similar analytical category for telephone utilities.

Electric utilities

For electric utilities emphasis is placed on generating reserve margins, fuel mix, fuel contract terms, demand-side management techniques, and purchased power arrangements. The adequacy of generating margins is examined nationally, regionally, and for each individual company. However, the reserve margin picture is muddied by the imprecise nature of peak-load growth forecasting, and also supply uncertainty relating to such things as Canadian capacity availability and potential plant shutdowns due to age, new NRC rules, acid rain remedies, fuel shortages, problems associated with nontraditional technologies, and so forth. Even apparently ample reserves may not be what they seem. Moreover, the quality of capacity is just as important as the size of reserves. Companies' reserve requirements differ, depending upon individual operating characteristics.

Fuel diversity provides flexibility in a changing environment. Supply disruptions and price hikes can raise rates and ignite political and regulatory pressures that ultimately lead to erosion in financial performance. Thus, the ability to alter generating sources and take advantage of lower cost fuels is viewed favorably.

Dependence on any single fuel means exposure to that fuel's problems: electric utilities that rely on oil or gas face the potential for shortages and rapid price increases; utilities that own nuclear generating facilities face escalating costs for decommissioning; and coal-fired capacity entails environmental problems stemming from concerns over acid rain and the "greenhouse effect."

Buying power from neighboring utilities, qualifying facility projects, or independent power producers may be the best choice for a utility that faces increasing electricity demand. There has been a growing reliance on purchased power arrangements as an alternative to new plant construction. This can be an important advantage, since the purchasing utility avoids potential construction cost overruns as well as risking substantial capital. Also, utilities can avoid the financial risks typical of a multiyear construction program that are caused by regulatory lag and prudence reviews. Furthermore, purchased power may enhance supply flexibility, fuel resource diversity, and maximize load factors. Utilities that plan to meet demand projections with a portfolio of supply-side options also may be better able to adapt to future growth uncertainties. Notwithstanding the benefits of purchasing, such a strategy has risks associated with it. By entering into a firm long-term purchased power contract that contains a fixed-cost component, utilities can incur substantial market, operating, regulatory, and financial risks. Moreover, regulatory treatment of purchased power removes any upside potential that might help offset the risks. Utilities are not compensated through incentive rate-making; rather, purchased power is recovered dollar-for-dollar as an operating expense.

To analyze the financial impact of purchased power, Standard & Poor's first calculates the net present value of future annual capacity payments (discounted at 10%). This represents a potential debt equivalent—the off-balance-sheet obligation that a utility incurs when it enters into a long-term purchased power contract. However, Standard

& Poor's adds to the utility's balance sheet only a portion of this amount, recognizing that such a contractual arrangement is not entirely the equivalent of debt. What percentage is added is a function of Standard & Poor's qualitative analysis of the specific contract and the extent to which market, operating, and regulatory risks are borne by the utility (the risk factor). For unconditional, take-or-pay contracts, the risk factor range is from 40%-80%, with the average hovering around 60%. A lower risk factor is typically assigned for system purchases from coal-fired utilities and a higher risk factor is usually designated for unit-specific nuclear purchases. The range for take-and-pay performance obligations is between 10%-50%.

Gas utilities

For gas distribution utilities, long-term supply adequacy obviously is critical, but the supply role has become even more important in credit analysis since the Federal Energy Regulatory Commission's Order 636 eliminated the interstate pipeline merchant business. This thrust gas supply responsibilities squarely on local gas distributors. Standard & Poor's has always believed distributor management has the expertise and wherewithal to perform the job well, but the risks are significant since gas costs are such a large percentage of total utility costs. In that regard, it is important for utilities to get preapprovals of supply plans by state regulators or at least keep the staff and commissioners well informed. To minimize risks, a well-run program would diversify gas sources among different producers or marketers, different gas basins in the U.S. and Canada, and different pipeline routes. Also, purchase contracts should be firm, with minimal take-or-pay provisions, and have prices tied to an industry index. A modest percentage of fixed-price gas is not unreasonable. Contracts, whether of gas purchases or pipeline capacity, should be intermediate term. Staggering contract expirations (preferably annually) provides an opportunity to be an active market player. A modest degree of reliance on spot purchases provides flexibility, as does the use of market-based storage. Gas storage and on-property gas resources such as liquefied natural gas or propane air are effective peak-day and peak-season supply management tools.

Since pipeline companies no longer buy and sell natural gas and are just common carriers, connections with varied reserve basins and many wells within those basins are of great importance. Diversity of sources helps offset the risks arising from the natural production declines eventually experienced by all reserve basins and individual wells. Moreover, such diversity can enhance a pipeline's attractiveness as a transporter of natural gas to distributors and end users seeking to buy the most economical gas available for their needs.

Water utilities

Nearly all water systems throughout the U.S. have ample long-term water supplies. Yet to gain comfort, Standard & Poor's assesses the production capability of treatment plants and the ability to pump water from underground aquifers in relation to the usage demands from consumers. Having adequate treated water storage facilities has become important in recent years and has helped many systems meet demands during peak summer periods. Of interest is whether the resources are owned by the utility or purchased from other utilities or local authorities. Owning properties with water rights provides more supply security. This is especially so in states like California where water allocations are being reduced, particularly since recent droughts and environmental issues have created alarm. Since the primary cost for water companies is treatment, it makes little difference whether raw water is owned or bought. In fact, compliance with federal and state water regulations is very high, and the overall cost to deliver treated water to consumers remains relatively affordable.

Asset concentration in the electric utility industry

In the electric industry, Standard & Poor's follows the operations of major generating facilities to assess if they are well managed or troubled. Significant dependence on one generating facility or a large financial investment in a single asset suggests high risk. The size or magnitude of a particular asset relative to total generation, net plant in service, and common equity is evaluated. Where substantial asset concentration exists, the financial profile of a company may experience wide swings depending on the asset's performance. Heavy asset concentration is most prevalent among utilities with costly nuclear units.

Earnings protection

In this category, pretax cash income coverage of all interest charges is the primary ratio. For this calculation, allowance for funds used during construction (AFUDC) is removed from income and interest expense. AFUDC and other such noncash items do not provide any protection for bondholders. To identify total interest expense, the analyst reclassifies certain operating expenses. The interest component of various off-balance-sheet obligations, such as leases and some purchased-power contracts, is included in interest expense. This provides the most direct indication of a utility's ability to service its debt burden.

While considerable emphasis in assessing credit protection is placed on coverage ratios, this measure does not provide the entire earnings protection picture. Also important are a company's earned returns on both equity and capital, measures that highlight a firm's earnings performance. Consideration is given to the interaction of embedded costs, financial leverage, and pretax return on capital.

Capital structure

Analyzing debt leverage goes beyond the balance sheet and covers quasi-debt items and elements of hidden financial leverage. Noncapitalized leases (including sale/leaseback obligations), debt guarantees, receivables financing, and purchased-power contracts are all considered debt equivalents and are reflected as debt in calculating capital

structure ratios. By making debt level adjustments, the analyst can compare the degree of leverage used by each utility company.

Furthermore, assets are examined to identify undervalued or overvalued items. Assets of questionable value are discounted to more accurately evaluate asset protection.

Some firms use short-term debt as a permanent piece of their capital structure. Short-term debt also is considered part of permanent capital when it is used as a bridge to permanent financing. Seasonal, self-liquidating debt is excluded from the permanent debt amount, but this situation is rare—with the exception of certain gas utilities. Given the long life of almost all utility assets, short-term debt may expose these companies to interest-rate volatility, remarketing risk, bank line backup risk, and regulatory exposure that cannot be readily offset. The lower cost of shorter-term obligations (assuming a positively sloped yield curve) is a positive factor that partially mitigates the risk of interest-rate variability. As a rule of thumb, a level of short-term debt that exceeds 10% of total capital is cause for concern.

Similarly, if floating-rate debt and preferred stock constitute over one-third of total debt plus preferred stock, this level is viewed as unusually high and may be cause for concern. It might also indicate that management is aggressive in its financial policies.

A layer of preferred stock in the capital structure is usually viewed as equity—since dividends are discretionary and the subordinated claim on assets provides a cushion for providers of debt capital. A preferred component of up to 10% is typically viewed as a permanent wedge in the capital structure of utilities. However, as rate-of-return regulation is phased out, preferred stock may be viewed by utilities—as many industrial firms would—as a temporary option for companies that are not current taxpayers that do not benefit from the tax deductibility of interest. Even now, floating-rate preferred and money market perpetual preferred are problematic; a rise in the rate due to deteriorating credit quality tends to induce a company to take out such preferred stock with debt. Structures that convey tax deductibility to preferred stock have become very popular and do generally afford such financings with equity treatment.

Cash flow adequacy

Cash flow adequacy relates to a company's ability to generate funds internally relative to its needs. It is a basic component of credit analysis because it takes cash to pay expenses, fund capital spending, pay dividends, and make interest and principal payments. Since both common and preferred dividend payments are important to maintain capital market access, Standard & Poor's looks at cash flow measures both before and after dividends are paid.

To determine cash flow adequacy, several quantitative relationships are examined. Emphasis is placed on cash flow relative to debt, debt service requirements, and capital spending. Cash flow adequacy is evaluated with respect to a firm's ability to meet all fixed charges, including capacity payments under purchased-power contracts. Despite the conditional nature of some contracts, the purchaser is obligated to pay a minimum capacity charge. The ratio used is funds from operations plus interest and capacity payments divided by interest plus capacity payments.

Financial flexibility/capital attraction

Financing flexibility incorporates a utility's financing needs, plans, and alternatives, as well as its flexibility to accomplish its financing program under stress without damaging creditworthiness. External funding capability complements internal cash flow. Especially since utilities are so capital intensive, a firm's ability to tap capital markets on an ongoing basis must be considered. Debt capacity reflects all the earlier elements: earnings protection, debt leverage, and cash flow adequacy. Market access at reasonable rates is restricted if a reasonable capital structure is not maintained and the company's financial prospects dim. The analyst also reviews indenture restrictions and the impact of additional debt on covenant tests.

Standard & Poor's assesses a company's capacity and willingness to issue common equity. This is affected by various factors, including the market-to-book ratio, dividend policy, and any regulatory restrictions regarding the composition of the capital structure.

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November 30, 2007

U.S. Utilities Ratings Analysis Now Portrayed In The S&P Corporate Ratings Matrix

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U.S. Utilities Ratings Analysis Now Portrayed In The S&P Corporate Ratings Matrix

The electric, gas, and water utility ratings ranking lists published today by Standard & Poor's U.S. Utilities & Infrastructure Ratings practice are categorized under the business risk/financial risk matrix used by the Corporate Ratings group. This is designed to present our rating conclusions in a clear and standardized manner across all corporate sectors. Incorporating utility ratings into a shared framework to communicate the fundamental credit analysis of a company furthers the goals of transparency and comparability in the ratings process. Table 1 shows the matrix.

Table 1

Business Risk/Financial Risk

	Financial Risk Profile				
Business Risk Profile	**Minimal**	**Modest**	**Intermediate**	**Aggressive**	**Highly leveraged**
Excellent	AAA	AA	A	BBB	BB
Strong	AA	A	A-	BBB-	BB-
Satisfactory	A	BBB+	BBB	BB+	B+
Weak	BBB	BBB-	BB+	BB-	B
Vulnerable	BB	B+	B+	B	B-

The utilities rating methodology remains unchanged, and the use of the corporate risk matrix has not resulted in any changes to ratings or outlooks. The same five factors that we analyzed to produce a business risk score in the familiar 10-point scale are used in determining whether a utility possesses an "Excellent," "Strong," "Satisfactory," "Weak," or "Vulnerable" business risk profile:

- Regulation,
- Markets,
- Operations,
- Competitiveness, and
- Management.

Regulated utilities and holding companies that are utility-focused virtually always fall in the upper range ("Excellent" or "Strong") of business risk profiles. The defining characteristics of most utilities--a legally defined service territory generally free of significant competition, the provision of an essential or near-essential service, and the presence of regulators that have an abiding interest in supporting a healthy utility financial profile--underpin the business risk profiles of the electric, gas, and water utilities.

As the matrix concisely illustrates, the business risk profile loosely determines the level of financial risk appropriate for any given rating. Financial risk is analyzed both qualitatively and quantitatively, mainly with financial ratios and other metrics that are calculated after various analytical adjustments are performed on financial statements prepared under GAAP. Financial risk is assessed for utilities using, in part, the indicative ratio ranges in table 2.

Table 2

Financial Risk Indicative Ratios - U.S. Utilities

(Fully adjusted, historically demonstrated, and expected to consistently continue)

	Cash flow		Debt leverage
	(FFO/debt) (%)	(FFO/interest) (x)	(Total debt/capital) (%)
Modest	40 - 60	4.0 - 6.0	25 - 40
Intermediate	25 - 45	3.0 - 4.5	35 - 50
Aggressive	10 - 30	2.0 - 3.5	45 - 60
Highly leveraged	Below 15	2.5 or less	Over 50

The indicative ranges for utilities differ somewhat from the guidelines used for their unregulated counterparts because of several factors that distinguish the financial policy and profile of regulated entities. Utilities tend to finance with long-maturity capital and fixed rates. Financial performance is typically more uniform over time, avoiding the volatility of unregulated industrial entities. Also, utilities fare comparatively well in many of the less-quantitative aspects of financial risk. Financial flexibility is generally quite robust, given good access to capital, ample short-term liquidity, and the like. Utilities that exhibit such favorable credit characteristics will often see ratings based on the more accommodative end of the indicative ratio ranges, especially when the company's business risk profile is solidly within its category. Conversely, a utility that follows an atypical financial policy or manages its balance sheet less conservatively, or falls along the lower end of its business risk designation, would have to demonstrate an ability to achieve financial metrics along the more stringent end of the ratio ranges to reach a given rating.

Note that even after we assign a company a business risk and financial risk, the committee does not arrive by rote at a rating based on the matrix. The matrix is a guide—it is not intended to convey precision in the ratings process or reduce the decision to plotting intersections on a graph. Many small positives and negatives that affect credit quality can lead a committee to a different conclusion than what is indicated in the matrix. Most outcomes will fall within one notch on either side of the indicated rating. Larger exceptions for utilities would typically involve the influence of related unregulated entities or extraordinary disruptions in the regulatory environment.

We will use the matrix, the ranking list, and individual company reports to communicate the relative position of a company within its business risk peer group and the other factors that produce the ratings.

Missouri Gas Energy
Decoupling Mechanisms of the
Proxy Group of Nine Value Line Natural Gas Distribution Companies

				WNA (Yes or No)	RNA (Yes or No)	Other Mechanism (Yes or No)	Description
Proxy Group of Nine Value Line Natural Gas Distribution Companies							
AGL Resources Inc.	NJ			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	FL			No	No	No	No decoupling mechanism present.
	VA			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	TN			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	GA			No	No	Yes	Straight Fixed Variable Rate Design: Set on usage. Higher charges in winter months than summer months.
	MO			No	No	No	No decoupling mechanism present.
	Percent of Revenues Decoupled: (1)	55.16%	(2)				
Atmos Energy Corp.	GA			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	KS			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	KY			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	LA			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	MS			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	TN			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	TX			Yes	No	Yes	In addition to the WNA, Texas also has a Gas Reliability Infrastructure Program (GRIP) that adds capital costs from the prior year automatically to rate base.
	VA			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	IL			No	No	No	No decoupling mechanism present.
	LA			No	No	No	No decoupling mechanism present.
	MO			No	No	No	No decoupling mechanism present.
	CO			No	No	No	No decoupling mechanism present.
	Percent of Revenues Decoupled: (1)	88.40%	(3)				
The Laclede Group, Inc.	MO			Yes	No	No	Weather Mitigation Rate Design that lessens the impact of weather volatility for customers during cold winters and stabilizes the Company's earnings by recovering fixed costs more evenly during the heating season.
	Percent of Revenues Decoupled: (1)	100.00%					
New Jersey Resources Corp.	NJ			No	No	Yes	Consumer Incentive Program (CIP): Eliminates the disincentive to promote conservation and efficiency, normalizes utility gross margin for variance in weather and in customer usage.
	Percent of Revenues Decoupled: (1)	100.00%					
Northwest Natural Gas Co.	OR			Yes	No	Yes	In addition to the WNA, Oregon also has the Conservation Tariff, which is designed to break the link between earnings and quantity consumed, removing the incentive for waste.
	WA			No	No	No	No decoupling mechanism present.
	Percent of Revenues Decoupled: (1)	81.00%	(4)				
Piedmont Natural Gas Co., Inc.	SC			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	NC			No	No	Yes	Customer Utilization Tracker (CUT): Recovery of approved margin from residential and commercial customers independent from weather and usage.
	TN			Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	Percent of Revenues Decoupled: (1)	100.00%					
South Jersey Industries, Inc.	NJ			No	No	Yes	Consumer Incentive Program (CIP): Eliminates the disincentive to promote conservation and efficiency, normalizes utility gross margin
	Percent of Revenues Decoupled: (1)	100.00%					
Southwest Gas Corporation	CA			No	No	Yes	Balancing account to protect consumers if base revenues exceed authorized levels, and to protect stockholders if base revenues are less than authorized levels.
	NV			No	No	No	No decoupling mechanism present.
	AZ			No	No	No	No decoupling mechanism present.
	Percent of Revenues Decoupled: (1)	10.00%	(5)				

Exhibit FJH-3
Page 1 of 2

Missouri Gas Energy
Decoupling Mechanisms of the
Proxy Group of Nine Value Line Natural Gas Distribution Companies

	States Operated		WNA (Yes or No)	RNA (Yes or No)	Other Mechanism (Yes or No)	Description
WGL Holdings, Inc.	MD		Yes	Yes	No	Utility in Maryland enjoys both a WNA and a Revenue Normalization Adjustment (RNA) which is a mechanism which stabilizes the level of net revenues collected by eliminating the effect of deviations of customer usage from weather and conservation efforts.
	DC		No	No	No	No decoupling mechanism present.
	VA		Yes	No	No	Weather Normalization Mechanism (WNA): Protects company from vagaries of weather.
	Percent of Revenues Decoupled: (1)	85.61%	(6)			
Average of the Proxy Group of Nine Value Line Natural Gas Distribution Companies						
	Percent of Revenues Decoupled:	84.463%				

Notes:

(1) The extent to which each company's revenues are decoupled partially or fully was based upon the number of customers (or meters) in each jurisdiction relative to the total number of customers (or meters).

(2) The breakdown of AGL Resources (AGL) customer base is as follows:

The Florida and Maryland Operations of AGL Resources do not have a decoupling mechanism, but only represent approximately 5% of the total number of customers that AGL serves, therefore, 95% of AGL's revenues are affected by partial or full decoupling.

State	Customers (000's)	Percent of total	Decoupling Present?	Decoupled Percent of Total
NJ	272	11.98%	Yes	11.98%
FL	104	4.58%	No	0.00%
VA	269	11.85%	Yes	11.85%
TN	61	2.69%	Yes	2.69%
GA	1,559	68.65%	Yes	68.65%
MD	6	0.26%	No	0.00%
Total	2,271	100%		95.16%

(3) Atmos Energy Corp. (ATO) serves customers in 12 states which falls under six divisions. These six divisions and states served are as follows:

In these divisions, some jurisdictions have a decoupling mechanism, while others do not. Since ATO did not specify meters by state, Mr. Hanley weighted each state equally. For example, Atmos Energy Kentucky/ Midstates Division represents seven states, four of which have partial or full decoupling. Mr. Hanley multiplies 4/7 or 57% by the percent of total revenues for Atmos Energy Kentucky/ Midstates division to get the decoupled revenues for that division.

Division	State	Total Meters	Percent of total	Decoupling Present?	Decoupled Percent of Total
Atmos Energy Mid-Tex	TX	1,531,728	47.99%	Yes	47.99%
Atmos Energy Kentucky/ Mid-States Division	GA	489,911	15.35%	Yes	8.77%
	IL			No	
	IA			No	
	KY			Yes	
	MO			No	
	TN			Yes	
	VA			Yes	
Atmos Energy Louisiana Division	LA	359,270	11.25%	Yes	11.25%
Atmos Energy West Texas Division	TX	299,602	9.39%	Yes	9.39%
Atmos Energy Mississippi Division	MS	270,716	8.48%	Yes	8.48%
Atmos Energy Colorado-Kansas Division	CO	240,553	7.54%	No	2.51%
	KS			Yes	
	MO			No	
Total		3,191,779	100.00%		88.40%

(4) The breakdown of Northwest Natural Gas Company's (NWN) customer base is as follows:

There is a decoupling mechanism present in Oregon, but customers can opt out of this mechanism, and according to the 2007 10K approximately 10% of NWN's Oregon customers have annually opted out of the mechanism.

State	Customers	Percent of Total	Decoupling Present	Decoupled Percent of Total
OR	526,039	81.00%	Yes	81.00%
OR (opt out)	58,671	9.00%	Yes	0.00%
WA	65,190	10.00%	No	0.00%
Total	651,900	100.00%		81.00%

(5) Southwest Gas Corporation's California division is the only division that enjoys decoupled revenues. From SWX's 2007 Annual Report, its California Division only contributes 10% to the operating margin of SWX as a whole, which means that only 10% of its revenues are affected by partial or full decoupling.

(6) The breakdown of WGL Holdings, Inc's (WGL) meters per state is as follows:

The Washington D.C. Division of WGL does not enjoy a decoupling mechanism but its meters are only 14.39% of the total meters for WGL as a whole.

State	Meters	Percent of Total	Decoupling Present	Decoupled Percent of Total
DC	151,514	14.39%	No	0.00%
MD	427,554	40.60%	Yes	40.60%
VA	473,964	45.01%	Yes	45.01%
Total	1,053,032	100.00%		85.61%

Source of information:
SEC Form 10K for each company

Exhibit FJH-3
Page 2 of 2

Missouri Gas Energy
Summary of SIC Codes, Gas Distribution Operating Income and Assets Compared to Total for the
Proxy Group of Nine Value Line Natural Gas Distribution Companies
and Southern Union Company

Company	SIC Code	Description	Gas Distribution Operating Income/ Total Operating Income	Gas Distribution Assets/Total Assets	Value Line Beta (1)	
Proxy Group of Nine Value Line Natural Gas Distribution Companies						
AGL Resources Inc.	4924	Natural Gas Distribution	67.40%	76.65%	0.75	
Atmos Energy Corp.	4924	Natural Gas Distribution	81.16%	93.83%	0.65	
The Laclede Group, Inc.	4924	Natural Gas Distribution	61.47%	83.70%	0.65	
New Jersey Resources Corp.	4924	Natural Gas Distribution	69.57%	69.65%	0.70	
Northwest Natural Gas Co.	4924	Natural Gas Distribution	90.65%	96.36%	0.60	
Piedmont Natural Gas Co., Inc.	4924	Natural Gas Distribution	100.00%	96.50%	0.70	
South Jersey Industries, Inc.	4924	Natural Gas Distribution	64.79%	80.23%	0.75	
Southwest Gas Corporation	4923	Natural Gas Transmission and Distribution	86.56%	95.86%	0.75	
WGL Holdings, Inc.	4924	Natural Gas Distribution	83.90%	90.20%	0.75	
			78.39%	87.00%	0.70	Average
			81.16%	90.20%	0.70	Median
Southern Union Company	4922	Natural Gas Transmission	13.39%	14.02%	1.10	

Notes
(1) From Page 9 of Schedule FJH-1S.

Source of Information:
EDGAR Filings of 2007 Company 10Ks

STANDARD &POOR'S

RATINGSDIRECT®

February 2, 2009

Issuer Ranking:

U.S. Natural Gas Distributors And Integrated Gas Companies, Strongest To Weakest

Primary Credit Analyst:
Kenneth L Farer, New York (1) 212-438-1679; kenneth_farer@standardandpoors.com

Issuer Ranking:

U.S. Natural Gas Distributors And Integrated Gas Companies, Strongest To Weakest

Standard & Poor's Ratings Services' analytic framework for companies in all sectors, including investor-owned utilities, consists of the business risk profile and financial risk profile. We categorize business risk profiles as 'Excellent', 'Strong', 'Satisfactory', 'Weak', or 'Vulnerable'. To determine a utility's business risk profile, Standard & Poor's analyzes the following qualitative business or operating characteristics typical of a utility: markets and service area economy; competitive position; operations; regulation; and management. We characterize financial risk profiles as 'Minimal', 'Modest', 'Intermediate', 'Aggressive', and 'Highly Leveraged'. The primary drivers in our financial risk profile analysis of these companies include accounting characteristics; financial governance/policies and risk tolerance; cash flow adequacy; capital structure and leverage; and liquidity/short-term factors.

Currently, Standard & Poor's considers 85% of the rated U.S. gas distribution companies to have excellent business risk profiles, which reflects the supportive nature of most regulatory environments, monopolistic market positions, a mostly residential customer base, and relatively low operating risk compared with other utilities. The companies designated with a strong (two companies) business risk profile reflect significant non-regulated operations or a less supportive regulatory framework than other jurisdictions. We have assigned a satisfactory business risk profile to four companies that have expanded into the higher risk exploration and production (E&P) arena. Standard & Poor's views the E&P segments as having significantly higher operating and financial risks than utility assets, specifically, the exposure to commodity price fluctuations and significant ongoing capital needs. The business risk profile of MXEnergy Holdings Inc. is vulnerable, reflecting management's acquisitive nature, lack of significant barriers to entry for competing natural gas marketers, and relatively flat participation in retail choice programs.

Because most companies in the sector have an excellent business risk profile, ratings differentiation occurs as varying financial performance, specifically, variations in the level and stability of cash flows and debt leverage. We categorize the local gas distribution companies (LDC) as having intermediate (77%), aggressive (about 20%), or highly leveraged (2%) financial risk profile. From 2002 through 2007, the median adjusted funds from operations to total debt for gas LDC companies was 28.1%, 19.9%, and 17.4% for the 'AA', 'A', and 'BBB' categories, respectively. For these companies, the median adjusted FFO interest coverage was 6.1x, 4.4x, and 3.7x with total debt to capital of 49.8%, 51.8%, and 57.1%, respectively.

For the related industry report card, please see "Industry Report Card: U.S. Investor-Owned Natural Gas Distribution Companies Remain Stable," published on Dec. 31, 2008.

The following list ranks all the rated companies in this industry from strongest to weakest based on rating and outlook. Companies with the same rating and outlook are further ranked by our opinion of credit quality based primarily on business risks for investment-grade companies and primarily on financial risks for speculative-grade companies.

Issuer Ranking: U.S. Natural Gas Distributors And Integrated Gas Companies

Company	Corporate credit rating*	Business risk profile	Financial profile
Nicor Gas Co.	AA/Stable/A-1+	Excellent	Intermediate
Nicor Inc.	AA/Stable/A-1+	Excellent	Intermediate

Issuer Ranking: U.S. Natural Gas Distributors And Integrated Gas Companies (Cont.)			
Washington Gas Light Co.	AA-/Stable/A-1	Excellent	Intermediate
WGL Holdings Inc.	AA-/Stable/A-1	Excellent	Intermediate
Northwest Natural Gas Co.	AA-/Negative/A-1+	Excellent	Intermediate
NSTAR Gas Co.	A+/Stable/--	Excellent	Intermediate
Piedmont Natural Gas Co. Inc.	A/Stable/--	Excellent	Intermediate
KeySpan Energy Delivery Long Island	A/Stable/--	Excellent	Intermediate
KeySpan Energy Delivery New York	A/Stable/--	Excellent	Intermediate
Laclede Gas Co.	A/Stable/A-1	Excellent	Intermediate
Laclede Group Inc. (The)	A/Stable/--	Excellent	Intermediate
New Jersey Natural Gas Co.	A/Negative/A-1	Excellent	Intermediate
Southern California Gas Co.	A/Negative/A-1	Excellent	Intermediate
San Diego Gas & Electric Co.	A/Negative/A-1	Excellent	Intermediate
Northern Natural Gas Co.	A/Watch Neg/--	Excellent	Intermediate
Wisconsin Gas LLC	A-/Positive/A-2	Excellent	Intermediate
Indiana Gas Co. Inc.	A-/Stable/--	Excellent	Intermediate
Colonial Gas Co.	A-/Stable/--	Excellent	Intermediate
Boston Gas Co.	A-/Stable/--	Excellent	Intermediate
Southern Indiana Gas & Electric Co.	A-/Stable/--	Excellent	Intermediate
Vectren Utility Holdings Inc.	A-/Stable/A-2	Excellent	Intermediate
Vectren Corp.	A-/Stable/--	Excellent	Intermediate
KeySpan Corp.	A-/Stable/A-2	Excellent	Intermediate
Atlanta Gas Light Co.	A-/Stable/--	Excellent	Intermediate
AGL Resources Inc.	A-/Stable/A-2	Excellent	Intermediate
Peoples Gas Light & Coke Co. (The)	A-/Negative/A-2	Excellent	Intermediate
North Shore Gas Co.	A-/Negative/--	Excellent	Intermediate
Peoples Energy Corp.	A-/Negative/--	Excellent	Intermediate
Public Service Co. of North Carolina Inc.	A-/Negative/A-2	Excellent	Aggressive
Questar Gas Co.	A-/Watch Neg/--	Excellent	Intermediate
Questar Corp.	--/Watch Neg/A-2	Satisfactory	Intermediate
Atmos Energy Corp.	BBB+/Stable/A-2	Excellent	Aggressive
South Jersey Gas Co.	BBB+/Stable/--	Excellent	Aggressive
Sempra Energy	BBB+/Negative/A-2	Strong	Intermediate
Connecticut Natural Gas Corp.	BBB+/Watch Neg/--	Excellent	Intermediate
Southern Connecticut Gas Co.	BBB+/Watch Neg/--	Excellent	Intermediate
National Fuel Gas Co.	BBB+/Watch Neg/A-2	Satisfactory	Intermediate
Alabama Gas Corp.	BBB+/Watch Neg/--	Excellent	Intermediate
Energen Corp.	BBB+/Watch Neg/--	Satisfactory	Intermediate
Yankee Gas Services Co.	BBB/Stable/--	Excellent	Aggressive
Michigan Consolidated Gas Co.	BBB/Stable/A-2	Excellent	Aggressive
Equitable Resources Inc.	BBB/Watch Neg/A-3	Satisfactory	Intermediate
Southwest Gas Corp.	BBB-/Positive/--	Strong	Aggressive
Bay State Gas Co.	BBB-/Stable/--	Excellent	Aggressive
NiSource Inc.	BBB-/Stable/--	Excellent	Aggressive

Issuer Ranking: U.S. Natural Gas Distributors And Integrated Gas Companies (cont.)*			
Northern Indiana Public Service Co.	BBB-/Stable/--	Excellent	Aggressive
SourceGas LLC	BB+/Stable/--	Excellent	Highly leveraged
MXEnergy Holdings Inc.	CC/Watch Neg/--	Vulnerable	Highly leveraged

*As of Feb. 2, 2009.

STANDARD & POOR'S

RATINGSDIRECT

February 2, 2009

Issuer Ranking:

U.S. Midstream Energy Companies, Strongest To Weakest

Primary Credit Analyst:
William Ferara, New York (1) 212-438-1776; bill_ferara@standardandpoors.com

Issuer Ranking:

U.S. Midstream Energy Companies, Strongest To Weakest

The following list ranks all the rated companies in this industry from strongest to weakest based on rating and outlook. Companies with the same rating and outlook are further ranked by our opinion of credit quality based primarily on business risks for investment-grade companies and primarily on financial risks for speculative-grade companies.

A Standard & Poor's rating outlook assesses the potential direction of an issuer's long-term debt rating over the intermediate to longer term. In determining a rating outlook, consideration is given to any changes in the economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action. "Positive" indicates that a rating may be raised; "negative" means a rating may be lowered; "stable" indicates that ratings are not likely to change; and "developing" means ratings may be raised or lowered.

Midstream business profiles can be categorized as "excellent," "strong," "satisfactory," "weak," or "vulnerable" under the credit ratings methodology applied to all rated corporate entities at Standard & Poor's. Issuer credit ratings, shown as long-term rating/outlook or CreditWatch/short-term rating, are local and foreign currency unless otherwise noted. A dash (--) indicates not rated.

For the related industry report card, please see "Industry Report Card: U.S. Midstream Energy Credit Quality Suffers From Tight Liquidity And Lower Commodity Prices," published on Dec. 24, 2008.

IssuerRanking-U.S.MidstreamEnergyCompanies

Issuers	Corp. credit rating*	Business risk	Financial risk
Colonial Pipeline Co.	A/Stable/A-1	Excellent	Intermediate
Northern Natural Gas Co.	A/Watch Neg/--	Excellent	Intermediate
Maritimes & Northeast Pipeline L.P.	Sr secured: A/Stable	--	--
Explorer Pipeline Co.	--/--/A-2	Excellent	Intermediate
Express Pipeline Partnership¶	Sr secured: A-/Stable	--	--
Northern Border Pipeline Co.	A-/Stable/--	Excellent	Intermediate
Questar Pipeline Co.	A-/Watch Neg/--	Excellent	Intermediate
Kern River Funding Corp.¶	Sr secured: A-/Watch Neg	--	--
Iroquois Gas Transmission System L.P.	BBB+/Positive/--	Excellent	Intermediate
Alliance Pipeline Limited Partnership¶	Sr secured: BBB+/Stable	--	--
Alliance Pipeline L.P.¶	Sr secured: BBB+/Stable	--	--
Spectra Energy Corp	BBB+/Stable/--	Strong	Intermediate
Enogex Inc.	BBB+/Stable/--	Satisfactory	Intermediate
Centennial Energy Holdings Inc.	BBB+/Stable/A-2	Satisfactory	Intermediate
DCP Midstream LLC	BBB+/Negative/A-2	Satisfactory	Intermediate
Questar Market Resources Inc.	BBB+/Watch Neg/--	Satisfactory	Intermediate
National Fuel Gas Co.	BBB+/Watch Neg/A-2	Satisfactory	Intermediate
Florida Gas Transmission Co. LLC	BBB/Stable/--	Excellent	Intermediate
Gulfstream Natural Gas System LLC	BBB/Stable/--	Excellent	Aggressive

Issuer Ranking: U.S. Midstream Energy Companies (Cont.)			
Gulf South Pipeline Co. L.P.	BBB/Stable/--	Excellent	Aggressive
Texas Gas Transmission LLC	BBB/Stable/--	Excellent	Aggressive
Magellan Midstream Partners L.P.	BBB/Stable/--	Satisfactory	Intermediate
Buckeye Partners L.P.	BBB/Stable/--	Satisfactory	Aggressive
Boardwalk Pipeline Partners L.P.	BBB/Stable/--	Strong	Aggressive
ONEOK Inc.	BBB/Stable/A-2	Satisfactory	Intermediate
ONEOK Partners L.P.	BBB/Stable/--	Satisfactory	Intermediate
Rockies Express Pipeline LLC	BBB/Negative/--	Excellent	Aggressive
Kinder Morgan Energy Partners L.P.	BBB/Negative/A-3	Satisfactory	Intermediate
Enbridge Energy Partners L.P.	BBB/Negative/--	Satisfactory	Aggressive
Equitable Resources Inc.	BBB/Watch Neg/--	Satisfactory	Intermediate
Transcontinental Gas Pipe Line Corp.	BBB-/Stable/--	Excellent	Aggressive
Northwest Pipeline G.P.	BBB-/Stable/--	Excellent	Aggressive
NGPL PipeCo. LLC	BBB-/Stable/--	Excellent	Aggressive
MidCon LLC	BBB-/Stable/--	Excellent	Aggressive
Williams Cos. Inc. (The)	BBB-/Stable/--	Satisfactory	Aggressive
Williams Partners LP	BBB-/Stable/--	Satisfactory	Aggressive
TEPPCO Partners L.P.	BBB-/Stable/--	Satisfactory	Aggressive
Enterprise Products Partners L.P.	BBB-/Stable/--	Satisfactory	Aggressive
Energy Transfer Partners L.P.	BBB-/Stable/--	Satisfactory	Aggressive
Southern Star Central Gas Pipeline Inc.	BBB-/Stable/--	Excellent	Aggressive
Southern Star Central Corp.	BBB-/Stable/--	Excellent	Aggressive
Panhandle Eastern Pipe Line L.P.	BBB-/Negative/--	Satisfactory	Aggressive
Southern Union Co.	BBB-/Negative/--	Satisfactory	Aggressive
IFM (US) Colonial Pipeline 2 LLC	BB+/Stable/--	Satisfactory	Aggressive
Knight Inc.	BB/Stable/--	Weak	Aggressive
SG Resources Mississippi LLC¶	Sr secured: BB/Stable	--	--
Tennessee Gas Pipeline Co.	BB/Negative/--	Excellent	Aggressive
Southern Natural Gas Co.	BB/Negative/--	Excellent	Aggressive
Colorado Interstate Gas Co.	BB/Negative/--	Excellent	Aggressive
El Paso Natural Gas Co.	BB/Negative/--	Excellent	Aggressive
El Paso Corp.	BB/Negative/--	Satisfactory	Aggressive
Copano Energy LLC	BB-/Positive/--	Weak	Aggressive
Enterprise GP Holdings L.P.	BB-/Stable/--	Weak	Aggressive
Suburban Propane Partners L.P.	BB-/Stable/--	Weak	Aggressive
Inergy L.P.	BB-/Stable/--	Weak	Aggressive
Targa Resources Partners LP	BB-/Stable/--	Weak	Aggressive
Regency Energy Partners L.P.	BB-/Negative	Weak	Aggressive
Ferrellgas Partners L.P.	B+/Stable/--	Weak	Highly leveraged
Port Barre Investments LLC d/b/a Bobcat Gas Storage¶	Sr secured: B+/Negative	--	--
MarkWest Energy Partners L.P.	B+/Watch Neg/--	Weak	Aggressive
Atlas Pipeline Partners L.P.	B+/Watch Neg/--	Weak	Aggressive
Targa Resources Inc.	B/Stable/--	Vulnerable	Aggressive

Issuer Ranking: U.S. Midstream Energy Companies (Cont.)*			
Pine Prairie Energy Center LLC)	Sr secured: B/Stable	–	–
Star Gas Partners L.P.	B-/Positive/--	Vulnerable	Highly leveraged
Cheniere Energy Inc.	CCC+/Negative/--	Vulnerable	Highly leveraged

*As of Feb. 2, 2009.

PROXY GROUP OF NINE VALUE LINE NATURAL GAS DISTRIBUTION COMPANIES
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2004 - 2008, INCLUSIVE

	2008	2007	2006	2005	2004	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$1,929.182	$1,891.518	$1,824.633	$1,726.287	$1,490.288	
SHORT-TERM DEBT	$326.477	$205.402	$227.944	$156.543	$129.446	
TOTAL CAPITAL EMPLOYED	$2,255.658	$2,096.919	$2,052.577	$1,882.830	$1,619.734	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	5.21 %	5.84 %	6.08 %	5.93 %	5.42 %	
PREFERRED STOCK	1.70	1.21	1.20	1.19	1.20	
CAPITAL STRUCTURE RATIOS						5 YEAR AVERAGE
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	45.87 %	46.90 %	48.13 %	49.25 %	48.76 %	47.78 %
PREFERRED STOCK	0.29	0.38	0.36	0.36	0.38	0.35
COMMON EQUITY	53.84	52.74	51.51	50.39	50.86	51.87
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	54.53 %	53.23 %	55.00 %	54.31 %	53.44 %	54.10 %
PREFERRED STOCK	0.25	0.32	0.32	0.33	0.36	0.31
COMMON EQUITY	45.22	46.45	44.69	45.36	46.20	45.59
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	7.24 %	6.10 %	6.61 %	6.00 %	6.57 %	6.50 %
MARKET / AVERAGE BOOK RATIO	175.86	187.89	184.03	188.84	177.18	182.76
DIVIDEND YIELD	3.91	3.39	3.74	3.73	3.88	3.73
DIVIDEND PAYOUT RATIO	55.06	58.79	57.51	62.46	61.90	59.14
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	12.50 %	11.40 %	12.21 %	11.56 %	11.62 %	11.86 %
FUNDS FROM OPERATIONS / INTEREST COVERAGE (3)	4.51 X	4.42 X	4.08 X	4.28 X	4.99 X	4.46 X
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	17.01 %	19.91 %	17.81 %	18.25 %	20.85 %	18.77 %
TOTAL DEBT / TOTAL CAPITAL	54.53 %	53.23 %	55.00 %	54.31 %	53.44 %	54.10 %

See Page 2 for notes.

Proxy Group of Nine Value Line Natural Gas Distribution Companies
Capitalization and Financial Statistics
2004-2008, Inclusive

Notes:

(1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.

(2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.

(3) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges divided by interest charges.

(4) Funds from operations (as defined in Note 3) as a percentage of total debt.

Selection Criteria:

The basis of selection was to include those natural gas distribution companies: 1) which are included in the Natural Gas (Utility) group in Value Line (Standard Edition); 2) which have Value Line five-year EPS growth rate projections; 3) which have a Value Line beta; 4) which have not cut or omitted their common dividends during the five years ending 2008 or through the time of the preparation of this testimony; 5) which derived 60% or greater of both total net operating income and assets from to regulated gas operations; and 6) which at the time of the preparation of Mr. Hanley's accompanying direct testimony, had not publicly announced that they were involved in any merger or acquisition activity.

The following nine natural gas distribution companies met the above criteria:

AGL Resources, Inc.
The Laclede Group, Inc.
Northwest Natural Gas Co.
South Jersey Industries, Inc.
WGL Holdings, Inc.
Atmos Energy Corp.
New Jersey Resources Corp.
Piedmont Natural Gas Co., Inc.
Southwest Gas Corporation

Source of Information: Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Database
EDGAR Online's I-Metrix Database
Company Annual Forms 10K

Capital Structure Based upon Total Capital for
the Proxy Group of Nine Value Line Natural Gas Distribution Companies
for the Years 2004 through 2008

	2008	2007	2006	2005	2004	5 YEAR AVERAGE
AGL Resources, Inc.						
Long-Term Debt	39.64 %	42.25 %	42.55 %	43.96 %	48.05 %	43.29 %
Short-Term Debt	20.50	14.64	14.14	14.21	9.89	14.67
Preferred Stock	0.76	1.19	1.10	1.03	1.06	1.03
Common Equity	39.10	41.92	42.21	40.80	41.00	41.01
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Atmos Energy Corp.						
Long-Term Debt	46.88 %	50.16 %	51.82 %	55.58 %	43.35 %	49.56 %
Short-Term Debt	7.75	3.55	9.07	3.68	0.00	4.81
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.37	46.29	39.11	40.74	56.65	45.63
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
The Laclede Group, Inc.						
Long-Term Debt	31.73 %	38.18 %	39.30 %	46.47 %	48.61 %	40.86 %
Short-Term Debt	28.57	20.40	20.60	8.63	8.56	17.35
Preferred Stock	0.05	0.08	0.09	0.12	0.15	0.10
Common Equity	39.65	41.34	40.01	44.78	42.68	41.69
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
New Jersey Resources Corporation						
Long-Term Debt	36.27 %	30.07 %	27.14 %	34.36 %	32.08 %	31.99 %
Short-Term Debt	12.55	19.90	22.66	18.67	24.24	19.60
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	51.18	50.03	50.20	46.97	43.68	48.41
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Northwest Natural Gas Company						
Long-Term Debt	36.88 %	41.20 %	43.86 %	42.60 %	42.65 %	41.44 %
Short-Term Debt	17.86	11.40	8.03	10.19	8.76	11.25
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.26	47.40	48.11	47.21	48.59	47.31
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Piedmont Natural Gas Company, Inc.						
Long-Term Debt	38.92 %	43.44 %	43.93 %	38.76 %	40.63 %	41.14 %
Short-Term Debt	19.19	10.30	9.05	9.31	6.74	10.92
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	41.89	46.26	47.02	51.93	52.63	47.94
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
South Jersey Industries, Inc.						
Long-Term Debt	32.95 %	37.38 %	36.09 %	37.36 %	43.25 %	37.41 %
Short-Term Debt	19.57	12.35	19.49	17.12	11.94	16.10
Preferred Stock	0.04	0.04	0.05	0.05	0.25	0.08
Common Equity	47.44	50.23	44.37	45.47	44.56	46.41
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Southwest Gas Corporation						
Long-Term Debt	52.20 %	58.58 %	61.07 %	64.50 %	61.61 %	59.59 %
Short-Term Debt	2.40	0.38	0.00	1.10	4.76	1.73
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.40	41.04	38.93	34.40	33.63	38.68
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
WGL Holdings, Inc.						
Long-Term Debt	33.54 %	34.82 %	36.11 %	39.71 %	39.98 %	36.83 %
Short-Term Debt	13.37	10.07	10.05	2.56	5.87	8.39
Preferred Stock	1.39	1.54	1.60	1.76	1.73	1.60
Common Equity	51.70	53.57	52.24	55.97	52.42	53.18
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Average Proxy Group of Nine AUS Natural Gas Distribution						
Long-Term Debt	38.78 %	41.79 %	42.43 %	44.81 %	44.47 %	42.45 %
Short-Term Debt	15.75	11.44	12.57	9.50	8.97	11.65
Preferred Stock	0.25	0.32	0.31	0.33	0.35	0.31
Common Equity	45.22	46.45	44.69	45.36	46.21	45.59
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source of Information:
Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Data Base
EDGAR Online's I-Metrix Database
Annual Forms 10-K

Missouri Gas Energy
Summary of Capital Structure for Last 5 Quarters
of the Proxy Group of Nine Value Line Natural Gas Distribution Companies

	Quarter 4 2008	Quarter 3 2008	Quarter 2 2008	Quarter 1 2008	Quarter 4 2007	5 Quarter Average
AGL Resources						
Long-Term Debt	39.64 %	39.91 %	42.30 %	41.66 %	42.25 %	41.15 %
Short-Term Debt	20.50	16.32	13.25	10.14	14.64	15.37
Preferred Stock	0.76	0.69	0.88	0.88	1.19	0.88
Common Equity	39.10	41.08	43.57	47.32	41.92	42.60
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Atmos Energy Corp.						
Long-Term Debt	46.51 %	46.88 %	48.87 %	50.03 %	48.78 %	48.22 %
Short-Term Debt	7.91	7.75	2.61	0.00	4.64	4.58
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.58	45.37	48.52	49.97	46.58	47.20
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Laclede Group, Inc. (1)						
Long-Term Debt	33.49 %	35.63 %	36.35 %	35.28 %	32.61 %	34.67 %
Short-Term Debt	22.68	19.76	6.89	17.02	26.99	18.67
Preferred Stock	0.06	0.06	0.08	0.07	0.08	0.07
Common Equity	43.77	44.55	56.68	47.63	40.32	46.59
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
New Jersey Resources Corp.						
Long-Term Debt	32.91 %	36.27 %	38.56 %	32.39 %	29.14 %	33.87 %
Short-Term Debt	17.78	12.55	11.14	12.28	21.38	15.03
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	49.31	51.18	50.20	55.33	49.48	51.10
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Northwest Natural Gas Company						
Long-Term Debt	36.88 %	39.64 %	42.76 %	43.05 %	41.20 %	40.70 %
Short-Term Debt	17.86	13.53	5.60	4.55	11.40	10.59
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	45.26	46.83	51.64	52.40	47.40	48.71
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Piedmont Natural Gas Co., Inc.						
Long-Term Debt	38.92 %	43.04 %	44.48 %	40.53 %	43.44 %	42.08 %
Short-Term Debt	19.18	8.85	4.23	14.20	10.30	11.35
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	41.89	48.11	51.29	45.27	46.26	46.57
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
South Jersey Industries						
Long-Term Debt	35.94 %	34.84 %	35.88 %	40.40 %	37.38 %	36.85 %
Short-Term Debt	12.20	15.39	12.30	3.59	12.35	11.16
Preferred Stock	0.12	0.13	0.14	0.05	0.04	0.10
Common Equity	51.74	49.64	51.68	55.96	50.23	51.89
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Southwest Gas Company						
Long-Term Debt	54.20 %	56.73 %	55.92 %	55.83 %	56.67 %	56.27 %
Short-Term Debt	2.31	0.00	0.00	0.00	0.38	0.54
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	43.49	43.27	44.08	44.17	40.95	43.19
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
WGL Holdings, Inc.						
Long-Term Debt	32.31 %	33.54 %	35.95 %	34.81 %	32.26 %	33.77 %
Short-Term Debt	16.68	13.37	2.73	5.35	15.21	10.67
Preferred Stock	1.29	1.39	1.57	1.52	1.42	1.44
Common Equity	49.72	51.70	59.75	58.32	51.11	54.12
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
Proxy Group of Nine Value Line Natural Gas Distribution Companies						
Long-Term Debt	38.98 %	40.70 %	42.35 %	41.55 %	40.64 %	40.84 %
Short-Term Debt	15.23	12.17	6.63	7.46	13.03	10.88
Preferred Stock	0.25	0.25	0.30	0.28	0.30	0.28
Common Equity	45.54	46.88	50.82	50.71	46.03	48.00
Total Capital	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Notes:

(1) Piedmont Natural Gas Co., Inc.'s capital structure data at 12/31/08 was not available at the preparation of this exhibit. The capital structure data used for Piedmont are the balance sheets from 9/30/08 to 9/30/07.

SOUTHERN UNION CO
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2004 - 2008, INCLUSIVE

	2008	2007	2006	2005	2004	
			(MILLIONS OF DOLLARS)			
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	$5,686.009	$5,600.812	$5,201.075	$4,029.858	$3,516.603	
SHORT-TERM DEBT	$401.459	$123.000	$100.000	$420.000	$21.000	
TOTAL CAPITAL EMPLOYED	$6,087.468	$5,723.812	$5,301.075	$4,449.858	$3,537.603	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	6.16 %	6.44 %	7.37 %	5.92 %	5.14 %	
PREFERRED STOCK	9.12	7.55	7.55	7.55	5.52	
CAPITAL STRUCTURE RATIOS						5 YEAR AVERAGE
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	58.35 %	60.62 %	60.58 %	53.99 %	64.11 %	59.53 %
PREFERRED STOCK	2.02	4.11	4.42	5.71	6.54	4.56
COMMON EQUITY	39.62	35.28	35.00	40.30	29.35	35.91
TOTAL	99.99 %	100.01 %	100.00 %	100.00 %	100.00 %	100.00 %
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	61.10 %	61.46 %	61.32 %	58.33 %	64.33 %	61.31 %
PREFERRED STOCK	1.89	4.02	4.34	5.17	6.50	4.38
COMMON EQUITY	37.01	34.52	34.34	36.50	29.17	34.31
TOTAL	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	10.91 %	5.62 %	6.47 %	0.13 %	7.58 %	6.14 %
MARKET / AVERAGE BOOK RATIO	120.18	196.73	176.35	171.90	135.08	160.04
DIVIDEND YIELD	2.90	1.28	1.14	0.00	0.00	1.06
DIVIDEND PAYOUT RATIO	26.87	25.54	23.18	0.00	0.00	15.12
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	13.21 %	11.13 %	11.60 %	0.25 %	10.38 %	9.31 %
FUNDS FROM OPERATIONS / INTEREST COVERAGE (3)	3.45 x	3.35 x	3.69 x	3.85 x	3.39 x	3.55 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	14.70 %	14.53 %	17.85 %	15.84 %	13.42 %	15.27 %
TOTAL DEBT / TOTAL CAPITAL	61.10 %	61.46 %	61.32 %	58.33 %	64.33 %	61.31 %

Southern Union Company
Capitalization and Financial Statistics
2004-2008, Inclusive

Notes:

(1) All capitalization and financial statistics for Southern Union Company are based upon financial statements as originally reported in eachyear.

(2) Computed by relating actual long-term debt interest or preferred stock dividends booked to average of beginning and ending long-term debt or preferred stock reported to be outstanding.

(3) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges divided by interest charges.

(4) Funds from operations (as defined in Note 3) as a percentage of total debt.

Source of Information:
EDGAR Online's I-Metrix Database
Standard & Poor's Compustat Services, Inc., PC Plus / Research Insight Database

FIFTH EDITION

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9 Capital Budgeting and Risk

Long before the development of modern theories linking risk and expected return, smart financial managers adjusted for risk in capital budgeting. They realized intuitively that, other things being equal, risky projects are less desirable than safe ones. Therefore financial managers demanded a higher rate of return from risky projects, or they based their decisions on conservative estimates of the cash flows.

Various rules of thumb are often used to make these risk adjustments. For example, many companies estimate the rate of return required by investors in their securities and use the **company cost of capital** to discount the cash flows on all new projects. Since investors require a higher rate of return from a very risky company, such a firm will have a higher company cost of capital and will set a higher discount rate for its new investment opportunities. For example, in Table 8-1 we estimated that investors expected a rate of return of .163 or about 16.5 percent from Microsoft common stock. Therefore, according to the company cost of capital rule, Microsoft should have been using a 16.5 percent discount rate to compute project net present values.[1]

This is a step in the right direction. Even though we can't measure risk or the expected return on risky securities with absolute precision, it is still reasonable to assert that Microsoft faced more risk than the average firm and, therefore, should have demanded a higher rate of return from its capital investments.

But the company cost of capital rule can also get a firm into trouble if the new projects are more or less risky than its existing business. Each project should be evaluated at its *own* opportunity cost of capital. This is a clear implication of the value-additivity principle introduced in Chapter 7. For a firm composed of assets A and B, the firm value is

$$\text{Firm value} = PV(AB) = PV(A) + PV(B) = \text{sum of separate asset values}$$

Here PV(A) and PV(B) are valued just as if they were mini-firms in which stockholders could invest directly. Investors would value A by discounting its forecasted cash flows at a rate reflecting the risk of A. They would value B by discounting at a rate reflecting the risk of B. The two discount rates will, in general, be different.

[1]Microsoft did not use any significant amount of debt financing. Thus its cost of capital is the rate of return investors expect on its common stock. The complications caused by debt are discussed later in this chapter.

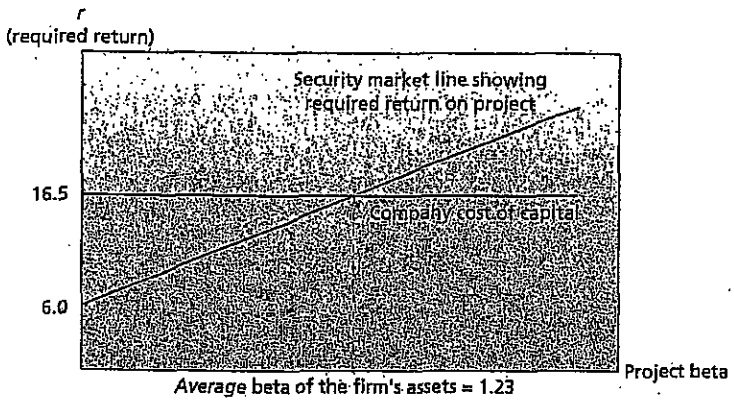

Figure 9-1 A comparison between the company cost of capital rule and the required return under the capital asset pricing model. Microsoft's company cost of capital is about 16.5 percent. This is the correct discount rate only if the project beta is 1.23. In general, the correct discount rate increases as project beta increases. Microsoft should accept projects with rates of return above the security market line relating required return to beta.

If the firm considers investing in a third project C, it should also value C as if C were a mini-firm. That is, the firm should discount the cash flows of C at the expected rate of return that investors would demand to make a separate investment in C. *The true cost of capital depends on the use to which the capital is put.*

This means that Microsoft should accept any project that more than compensates for the *project's beta*. In other words, Microsoft should accept any project lying above the upward-sloping line that links expected return to risk in Figure 9-1. If the project has a high risk, Microsoft needs a higher prospective return than if the project has a low risk. Now contrast this with the company cost of capital rule, which is to accept any project *regardless of its risk* as long as it offers a higher return than the *company's* cost of capital. In terms of Figure 9-1, the rule tells Microsoft to accept any project above the horizontal cost-of-capital line, i.e., any project offering a return of more than 16.5 percent.

It is clearly silly to suggest that Microsoft should demand the same rate of return from a very safe project as from a very risky one. If Microsoft used the company cost of capital rule, it would reject many good low-risk projects and accept many poor high-risk projects. It is also silly to suggest that just because Duke Power has a low company cost of capital, it is justified in accepting projects that Microsoft would reject. If you followed such a rule to its seemingly logical conclusion, you would think it possible to enlarge the company's investment opportunities by investing a large sum in Treasury bills. That would make the common stock safe and create a low company cost of capital.[2]

The notion that each company has some individual discount rate or cost of capital is widespread, but far from universal. Many firms require different returns from different categories of investment. For example, discount rates might be set as follows:

[2]If the present value of an asset depended on the identity of the company that bought it, present values would not add up. Remember, a good project is a good project is a good project.

Category	Discount Rate
Speculative ventures	30%
New products	20%
Expansion of existing business	15% (company cost of capital)
Cost improvement, known technology	10%

The capital asset pricing model is widely used by large corporations to estimate the discount rate. It states

$$\text{Expected project return} = r = r_f + (\text{project beta})(r_m - r_f)$$

To calculate this, you have to figure out the project beta. Before thinking about the betas of individual projects, we will look at some problems you would encounter in using beta to estimate a company's cost of capital. It turns out that beta is difficult to measure accurately for an individual firm: Much greater accuracy can be achieved by looking at an average of similar companies. But then we have to define *similar*. Among other things, we will find that a firm's borrowing policy affects its stock beta. It would be misleading, e.g., to average the betas of Chrysler, which has been a heavy borrower, and General Motors, which has generally borrowed less.

The company cost of capital is the correct discount rate for projects that have the same risk as the company's existing business but *not* for those projects that are safer or riskier than the company's average. The problem is to judge the relative risks of the projects available to the firm. To handle that problem, we will need to dig a little deeper and look at what features make some investments riskier than others. After you know *why* AT&T stock has less market risk than, say, Ford Motor, you will be in a better position to judge the relative risks of capital investment opportunities.

There is still another complication: Project betas can shift over time. Some projects are safer in youth than in old age; others are riskier. In this case, what do we mean by *the* project beta? There may be a separate beta for each year of the project's life. To put it another way, can we jump from the capital asset pricing model, which looks out one period into the future, to the discounted-cash-flow formula that we developed in Chapters 2 and 6 for valuing long-lived assets? Most of the time it is safe to do so, but you should be able to recognize and deal with the exceptions.

We will use the capital asset pricing model, or CAPM, throughout this chapter. But don't infer that the CAPM is the last word on risk and return. The principles and procedures covered in this chapter work just as well with other models such as arbitrage pricing theory (APT). For example, we could have started with an APT estimate of the expected rate of return on Microsoft stock; the discussion of company and project costs of capital would have followed exactly.

9-1 MEASURING BETAS

Suppose that you were considering an across-the-board expansion by your firm. Such an investment would have about the same degree of risk as the existing business. Therefore you should discount the projected flows at the company cost of capital. To estimate that, you could begin by estimating the beta of the company's stock.

An obvious way to measure the beta of the stock is to look at how its price has responded in the past to market movements. For example, in Figure 9-2*a* and *b* we have plotted monthly rates of return from AT&T and Hewlett-Packard against mar-

INTERMEDIATE FINANCIAL MANAGEMENT

9E

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ADJUSTING THE COST OF CAPITAL FOR RISK

As we have calculated it, the cost of capital reflects the average risk and overall capital structure of the entire firm. But what if a firm has divisions in several business lines that differ in risk? Or what if a company is considering a project that is much riskier than its typical project? It doesn't make sense for a company to use its overall cost of capital to discount divisional or project-specific cash flows that don't have the same risk as the company's average cash flows. The following sections explain how to adjust the cost of capital for divisions and for specific projects.

The Divisional Cost of Capital

Consider Starlight Sandwich Shops, a company with two divisions—a bakery operation and a chain of cafes. The bakery division is low risk and has a 10 percent cost of capital. The cafe division is riskier and has a 14 percent cost of capital. Each division is approximately the same size, so Starlight's overall cost of capital is 12 percent. The bakery manager has a project with an 11 percent expected rate of return, and the cafe division manager has a project with a 13 percent expected return. Should these projects be accepted or rejected? Starlight can create value if it accepts the bakery's project, since its rate of return is greater than its cost of capital (11% > 10%), but the cafe project's rate of return is less than its cost of capital (13% < 14%), so it should be rejected. However, if one simply compared the two projects' returns with Starlight's 12 percent overall cost of capital, then the bakery's value-adding project would be rejected while the cafe's value-destroying project would be accepted.

Many firms use the CAPM to estimate the cost of capital for specific divisions. To begin, recall that the Security Market Line equation expresses the risk/return relationship as follows:

As an example, consider the case of Huron Steel Company, an integrated steel producer operating in the Great Lakes region. For simplicity, assume that Huron has only one division and uses only equity capital, so its cost of equity is also its corporate cost of capital, or WACC. Huron's beta = b = 1.1; r_{RF} = 7%; and RP_M = 6%. Thus, Huron's cost of equity is 13.6 percent:

$$r_s = 7\% + (6\%)1.1 = 13.6\%$$

This suggests that investors should be willing to give Huron money to invest in average-risk projects if the company expects to earn 13.6 percent or more on this money. By average risk we mean projects having risk similar to the firm's existing division.

Now suppose Huron creates a new transportation division consisting of a fleet of barges to haul iron ore, and barge operations have betas of 1.5 rather than 1.1. The barge division, with b = 1.5, has a 16.0 percent cost of capital:

$$r_{Barge} = 7\% + (6\%)1.5 = 16.0\%$$

On the other hand, if Huron adds a low-risk division, such as a new distribution center with a beta of only 0.5, its divisional cost of capital would be 10 percent:

$$r_{Center} = 7\% + (6\%)0.5 = 10.0\%$$

A firm itself may be regarded as a "portfolio of assets," and since the beta of a portfolio is a weighted average of the betas of its individual assets, adding the barge and distribution center divisions will change Huron's overall beta. The exact value of the new beta would depend on the relative size of the investment in the new divisions versus Huron's original steel operations. If 70 percent of Huron's total value ends up in the steel division, 20 percent in the barge division, and 10 percent in the distribution center, then its new corporate beta would be

$$\text{New beta} = 0.7(1.1) + 0.2(1.5) + 0.1(0.5) = 1.12$$

Thus, investors in Huron's stock would have a required return of:

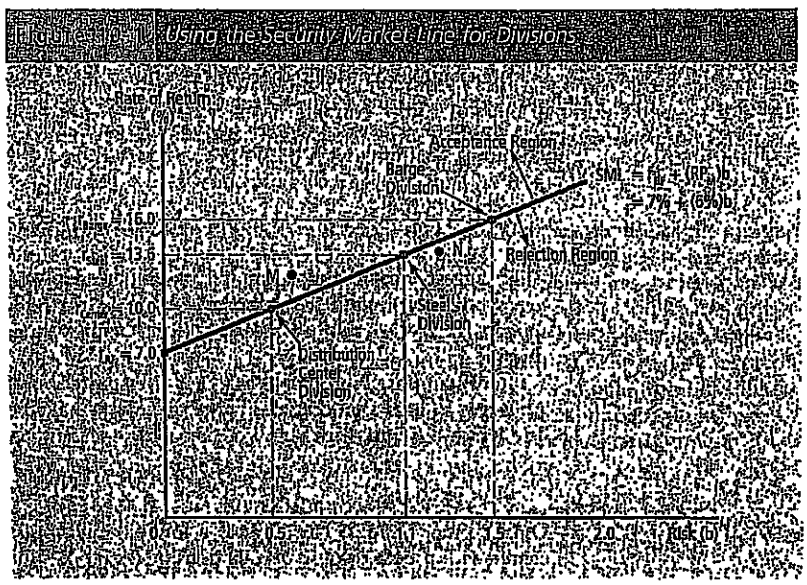
$$r_{\text{Huron}} = 7\% + (6\%)1.12 = 13.72\%$$

Even though the investors require an overall return of 13.72 percent, they would expect a return of at least 13.6 percent from the steel division, 16.0 percent from the barge division, and 10.0 percent from the distribution center.

Figure 10-1 gives a graphic summary of these concepts as applied to Huron Steel. Note the following points:

1. If the expected rate of return on a given capital project lies *above* the SML, the expected rate of return on the project is more than enough to compensate for its risk, and the project should be accepted. Conversely, if the project's rate of return lies *below* the SML, it should be rejected. Thus, Project M in Figure 10-1 is acceptable, whereas Project N should be rejected. N has a higher expected return than M, but the differential is not enough to offset its much higher risk.
2. For simplicity, the Huron Steel illustration is based on the assumption that the company used no debt financing, which allows us to use the SML to plot the

FIGURE 10-1 Using the Security Market Line for Divisions



company's cost of capital. The basic concepts presented in the Huron illustration also hold for companies that use debt financing. When debt financing is used, the division's cost of equity must be combined with the division's cost of debt and target capital structure to obtain the division's overall cost of capital.

Self-Test Questions

Based on the CAPM, how would one find the cost of capital for a low-risk division, and for a high-risk division?

Explain why you should accept a given capital project if its expected rate of return lies above the SML and reject it if its expected return is below the SML.

TECHNIQUES FOR MEASURING DIVISIONAL BETAS

In Chapter 2 we discussed the estimation of betas for stocks and indicated the difficulties in estimating beta. The estimation of divisional betas is much more difficult, and more fraught with uncertainty. However, two approaches have been used to estimate individual assets' betas—the pure play method and the accounting beta method.

The Pure Play Method

In the pure play method, the company tries to find several single-product companies in the same line of business as the division being evaluated, and it then averages those companies' betas to determine the cost of capital for its own division. For example, suppose Huron could find three existing single-product firms that operate barges, and suppose also that Huron's management believes its barge division would be subject to the same risks as those firms. Huron could then determine the betas of those firms, average them, and use this average beta as a proxy for the barge division's beta.[14]

The Accounting Beta Method

As noted above, it may be impossible to find single-product, publicly traded firms suitable for the pure play approach. If that is the case, we may be able to use the accounting beta method. Betas normally are found by regressing the returns of a particular company's *stock* against returns on a *stock market index*. However, we could run a regression of the division's *accounting return on assets* against the *average return on assets* for a large sample of companies, such as those included in the S&P 500. Betas determined in this way (that is, by using accounting data rather than stock market data) are called accounting betas.

Self-Test Question

Describe the pure play and the accounting beta methods for estimating divisional betas.

[14] If the pure play firms employ different capital structures than that of Huron, this fact must be dealt with by adjusting the beta coefficients. See Chapter 15 for a discussion of this aspect of the pure play method. For a technique that can be used when pure play firms are not available, see Yatin Bhagwat and Michael Ehrhardt, "A Full Information Approach for Estimating Divisional Betas," *Financial Management*, Summer 1991, pp. 60–69.

Missouri Gas Energy
Long-Term Debt Cost Rates of the
Proxy Group of Nine Value Line Natural Gas Distribution Companies
for the Fiscal Year 2008 (1)

Line No.	Proxy Group of Nine Value Line Natural Gas Distribution Companies	Actual for the Fiscal Year 2008 (1)
	AGL Resources, Inc.	5.64%
	Atmos Energy Corp	5.60%
	Laclede Group, Inc.	6.30%
	New Jersery Resources Corp.	5.20%
	Northwest Natural Gas Co.	6.53%
	Piedmont Natural Gas Co.	6.74%
	South Jersey Industries, Inc.	5.26%
	Southwest Gas Corp.	6.12%
	WGL Holdings, Inc.	5.98%
1.	Average	5.93%
2.	Provision for Estimated Issuance Costs	0.15%
3.	Conclusion of Long-Term Debt Cost Rate Applicable to Missouri Gas Energy (2)	6.08%

Notes: (1) Supporting information on pages 2 through 10 of this Schedule.

(2) Sum of Line Nos. 1 and 2.

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for AGL Resources Inc.
for the Fiscal Year 2008 (1)

	Amount Outstanding ($ 000s)	Effective Cost Rate	Annualized Cost ($ 000s)	Composite Interest Rate
Medium-term Notes				
Issue June 1992 Maturity at June 2012	$ 5,000	8.40%	$ 420	
Issue June 1992 Maturity at June 2012	5,000	8.30%	415	
Issue June 1992 Maturity at June 2012	5,000	8.30%	415	
Issue July 1997 Maturity July 2017	22,000	7.20%	1,584	
Issue February 1991 Maturity Feb. 2021	30,000	9.10%	2,730	
Issue April 1992 Maturity April 2022	5,000	8.55%	428	
Issue April 1992 Maturity April 2022	25,000	8.70%	2,175	
Issue April 1992 Maturity April 2022	6,000	8.55%	513	
Issue May 1992 Maturity May 2022	10,000	8.55%	855	
Issue Nov. 1996 Maturity Nov. 2026	30,000	6.55%	1,965	
Issue July 1997 Maturity July 2027	53,000	7.30%	3,869	
Senior Notes				
Issue Feb. 2001 Maturity Jan. 2011	300,000	7.13%	21,375	
Issue July 2003 Maturity April 2013	225,000	4.45%	10,013	
Issue Dec. 2004 Maturity Jan 2015	200,000	4.95%	9,900	
Issue June 2006 Maturity July 2016	175,000	6.38%	11,156	
Issue Dec 2007 Maturity July 2016	125,000	6.38%	7,969	
Issue Sep 2004 Maturity Oct 2034	250,000	6.00%	15,000	
Gas facility revenue bonds				
Issue July 1994 Maturity Oct 2022	47,000	0.70%	329	
Issue July 1994 Maturity Oct 2024	20,000	1.10%	220	
Issue June 1992 Maturity June 2026	39,000	1.10%	429	
Issue June 1992 Maturity June 2032	55,000	0.85%	468	
Issue July 1997 Maturity Nov 2033	39,000	5.25%	2,048	
Total Long-Term Debt (2)	$ 1,671,000		$ 94,276	5.64%

Notes: (1) Fiscal year ends December 31.
(2) Excluding capital leases of $ 4 million.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for Atmos Energy Corporation
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
Long-Term Debt				
Unsecured 4.00% Senior Notes, due 2009	$ 400,000	4.000%	$ 16,000	
Unsecured 7.375% Senior Notes, due 2011	350,000	7.375%	25,814	
Unsecured 10% Unsecured Notes, due 2011	2,303	10.000%	230	
Unsecured 5.125% Senior Notes, due 2013	250,000	5.125%	12,813	
Unsecured 4.95% Senior Notes, due 2014	500,000	4.950%	24,750	
Unsecured 6.35% Senior Notes, due 2017	250,000	6.350%	15,875	
Unsecured 5.95% Senior Notes, due 2034	200,000	5.950%	11,900	
Medium Term Notes				
Series A, 1995-2, 6.27%, due 2010	10,000	6.270%	627	
Series A, 1995-1, 6.67%, due 2025	10,000	6.670%	667	
Unsecured 6.75% Debentures, due 2028	150,000	6.750%	10,125	
Rental property, propane and other term notes due in installments through 2013	1,309	5.600% (2)	73	
Total Long-Term Debt	$ 2,123,612		$ 118,874	5.60%

Notes:

(1) Fiscal year ends September 30.

(2) Assumed equal to the composite debt cost rate of all debt excluding other long-term debt at September 30, 2008.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for Laclede Group, Inc.
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
Long-Term Debt - Laclede Gas				
First Mortgage Bond:				
6-1/2% Series, due November 2010	25,000	6.50%	1,625	
6-1/2% Series, due October 2012	25,000	6.50%	1,625	
5-1/2% Series, due May 2019	50,000	5.50%	2,750	
7% Series, due June 2029	25,000	7.00%	1,750	
7.90% Series, due September 2030	30,000	7.90%	2,370	
6% Series, due May 2034	100,000	6.00%	6,000	
6.15% Series, due June 2036	55,000	6.15%	3,383	
6.35% Series, Due October 2038	80,000	6.35%	5,080	
Total Long-Term Debt	$ 390,000		$ 24,583	6.30%

Notes:

(1) Fiscal year ends September 30.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for New Jersey Resources Corp.
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
New Jersey Natural Gas				
First Mortgage Bonds				
6.27% Series X, due 2008	$ 30,000	6.270%	$ 1,881	
Variable Series AA, due 2030	25,000	3.900%	975	
Variable Series BB, due 2030	16,000	4.600% (2)	736	
6.88% Series CC, due 2010	20,000	6.880%	1,376	
Variable Series DD, due 2027	13,500	4.600% (2)	621	
Variable Series EE, due 2028	9,545	4.600% (2)	439	
Variable Series FF, due 2028	15,000	4.600% (2)	690	
Variable Series GG, due 2033	18,000	4.600% (2)	828	
5% Series HH, due 2038	12,000	5.000%	600	
4.5% Series II, due 2023	10,300	4.500%	464	
4.6% Series JJ, due 2024	10,500	4.600%	483	
4.9% Series KK, due 2040	15,000	4.900%	735	
5.6% Series LL, due 2018	125,000	5.600%	7,000	
4.77% Unsecured senior notes, due 2014	60,000	4.770%	2,862	
Capital lease obligation - Bulidings, due 2021	26,371	5.200% (3)	1,371	
Capital lease obligation - Meters, due 2012	34,020	5.200% (3)	1,769	
New Jersey Resources				
3.75% Unsecured senior notes, due 2009	25,000	3.750%	938	
6.05% Unsecured senior notes, due 2017	50,000	6.050%	3,025	
Total Long-Term Debt	$ 515,236		$ 26,793	5.20%

Notes: (1) Fiscal year ends September 30.

(2) Weighted average interest rate at September 30, 2008.

(3) Assumed equal to the composite debt cost rate of all debt excluding capital lease obligations at September 30, 2008.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for Northwest Natural Gas Company
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
First Mortgage Bonds				
4.110% Series B due 2010	10,000	4.110%	411	
7.450% Series B due 2010	25,000	7.450%	1,863	
6.665% Series B due 2011	10,000	6.665%	667	
7.130% Series B due 2012	40,000	7.130%	2,852	
8.260% Series B due 2014	10,000	8.260%	826	
4.700% Series B due 2015	40,000	4.700%	1,880	
5.150% Series B due 2016	25,000	5.150%	1,288	
7.000% Series B due 2017	40,000	7.000%	2,800	
6.600% Series B due 2018	22,000	6.600%	1,452	
8.310% Series B due 2019	10,000	8.310%	831	
7.630% Series B due 2019	20,000	7.630%	1,526	
9.050% Series B due 2021	10,000	9.050%	905	
5.620% Series B due 2023	40,000	5.620%	2,248	
7.720% Series B due 2025	20,000	7.720%	1,544	
6.520% Series B due 2025	10,000	6.520%	652	
7.050% Series B due 2026	20,000	7.050%	1,410	
7.000% Series B due 2027	20,000	7.000%	1,400	
6.650% Series B due 2027	20,000	6.650%	1,330	
6.650% Series B due 2028	10,000	6.650%	665	
7.740% Series B due 2030	20,000	7.740%	1,548	
7.850% Series B due 2030	10,000	7.850%	785	
5.820% Series B due 2032	30,000	5.820%	1,746	
5.660% Series B due 2033	40,000	5.660%	2,264	
5.250% Series B due 2035	10,000	5.250%	525	
Total Long-Term Debt	$ 512,000		$ 33,418	6.53%

Notes: (1) Fiscal year ends December 31.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for Piedmont Natural Gas Co.
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
Senior Notes				
8.51%, due 2017	$ 35,000	8.51%	$ 2,979	
Insured Quarterly Notes:				
6.25%, due 2036	199,261	6.25%	12,454	
Medium-Term Notes				
7.35%, due 2009	30,000	7.35%	2,205	
7.80%, due 2010	60,000	7.80%	4,680	
6.55%, due 2011	60,000	6.55%	3,930	
5.00%, due 2013	100,000	5.00%	5,000	
6.87%, due 2023	45,000	6.87%	3,092	
8.45%, due 2024	40,000	8.45%	3,380	
7.40%, due 2025	55,000	7.40%	4,070	
7.50%, due 2026	40,000	7.50%	3,000	
7.95% due, 2029	60,000	7.95%	4,770	
6.00%, due 2033	100,000	6.00%	6,000	
Total Long-Term Debt	$ 824,261		$ 55,560	6.74%

Notes: (1) Fiscal year ends October 31.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for South Jersey Industries, Inc.
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
First Mortgage Bonds				
6.12% Series due 2010	10,000	6.12%	612	
6.74% Series due 2011	10,000	6.74%	674	
6.57% Series due 2011	15,000	6.57%	986	
4.46% Series due 2013	10,500	4.46%	468	
5.027% Series due 2013	14,500	5.027%	729	
4.52% Series due 2014	11,000	4.52%	497	
5.115% Series due 2014	10,000	5.115%	512	
5.387% Series due 2015	10,000	5.387%	539	
5.437% Series due 2016	10,000	5.437%	544	
6.50% Series due 2016	9,873	6.50%	642	
4.60% Series due 2016	17,000	4.60%	782	
4.657% Series due 2017	15,000	4.657%	699	
7.97% Series due 2018	10,000	7.97%	797	
7.125% Series due 2018	20,000	7.125%	1,425	
5.587% Series due 2019	10,000	5.587%	559	
7.7% Series due 2027	35,000	7.70%	2,695	
5.55% Series due 2033	32,000	5.55%	1,776	
6.213% Series due 2034	10,000	6.213%	621	
5.45% Series due 2035	10,000	5.45%	545	
Series A 2006 Bonds at variable rates due 2036	25,000	5.97% (2)	1,493	
Marina Energy LLC				
Series A 2001 Bonds at variables rates due 2031	20,000	1.68% (3)	336	
Series B 2001 Bonds at variables rates due 2021	25,000	2.57% (3)	643	
Series A 2006 Bonds at variables rates due 2036	16,400	0.98% (3)	161	
AC Landfill Energy, LLC				
Bank Term Loan, 6% due 2014	442	6.00%	27	
Mortgage Bond, 4.19% due 2019	1,181	4.19%	49	
Total Long-Term Debt	$ 357,896		$ 18,811	5.26%

Notes: (1) Fiscal year ends December 31.
(2) Assumed equal to the composite debt cost rate of all debt at December 31, 2007 excluding the Series A 2006 Bonds due 2036 and AC Landfill Energy, LLC's Bank Term Loan due 2014.
(3) At December 31, 2008

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
for Southwest Gas Corporation
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
Debentures				
Notes, 8.375%, due 2011	$ 200,000	8.375%	$ 16,750	
Notes, 7.625%, due 2012	200,000	7.625%	15,250	
8% Series, due 2026	75,000	8.000%	6,000	
Medium-Term Notes, 7.59% series, due 2017	25,000	7.590%	1,898	
Medium-Term Notes, 7.78% series, due 2022	25,000	7.780%	1,945	
Medium-Term Notes, 7.92% series, due 2027	25,000	7.920%	1,980	
Medium-Term Notes, 6.76% series, due 2027	7,500	6.760%	507	
Revolving credit facility and commercial paper	150,000	6.120% (2)	9,180	
Industrial development revenue bonds				
Variable-rate bonds				
Tax-exempt Series A, due 2028	50,000	1.740% (3)	870	
2003 Series A, due 2038	50,000	1.850% (3)	925	
2008 Series A, due 2038	50,000	2.290%	1,145	
Fixed-rate bonds				
6.10% 1999 Series A, due 2038	12,410	6.100%	757	
5.95% 2999 Series C, due 2038	14,320	5.950%	852	
5.55% 1999 Series D, due 2038	8,270	5.550%	459	
5.45% 2003 Series C, due 2038	30,000	5.450%	1,635	
5.25% 2003 Series D, due 2038	20,000	5.250%	1,050	
5.80% 2003 Series E, due 2038	15,000	5.800%	870	
5.25% 2004 Series A, due 2034	65,000	5.250%	3,413	
5.00% 2004 Series B, due 2033	75,000	5.000%	3,750	
4.85% 2005 Series A, due 2035	100,000	4.850%	4,850	
4.75% 2006 Series A, due 2036	56,000	4.750%	2,660	
Other	33,620	6.120% (2)	2,058	
Total Long-Term Debt	$ 1,287,120		$ 78,804	6.12%

Notes: (1) Fiscal year ends December 31.
(2) Assumed equal to the composite debt cost rate of all debt excluding revolving credit facility and other.
(3) Effective interest rate at December 31, 2008.

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Calculation of the Composite Cost Rate of Long-Term Debt Outstanding
WGL Holdings, Inc.
for the Fiscal Year 2008 (1)

Series	Amount Outstanding ($ 000s)	Effective Cost Rate (1)	Annualized Cost ($ 000s)	Composite Interest Rate
Washington Gas Light Company				
Unsecured Medium-Term Notes				
Due fiscal year 2009, 5.49% to 6.92%	75,000	6.71% (2)	5,033	
Due fiscal year 2010, 3.61%	50,000	3.61%	1,805	
Due fiscal year 2010, 7.50% to 7.70%	24,000	7.60% (3)	1,824	
Due fiscal year 2011, 6.64%	30,000	6.64%	1,992	
Due fiscal year 2012, 5.90% to 6.05%	77,000	5.98% (4)	4,605	
Due fiscal year 2014, 4.88% to 5.17%	67,000	5.03% (5)	3,370	
Due fiscal year 2015, 4.83%	20,000	4.83%	966	
Due fiscal year 2016, 5.17%	25,000	5.17%	1,293	
Due fiscal year 2023, 6.65%	20,000	6.65%	1,330	
Due fiscal year 2025, 5.44%	40,500	5.44%	2,203	
Due fiscal year 2027, 6.40% to 6.82%	125,000	6.61% (6)	8,263	
Due fiscal year 2028, 6.57% to 6.85%	52,000	6.71% (7)	3,489	
Due fiscal year 2030, 7.50%	8,500	7.50%	638	
Due fiscal year 2036, 5.70% to 5.78%	50,000	5.74% (8)	2,870	
Other long-term debt	15,785	5.98% (9)	944	
Total Long-Term Debt	$ 679,785		$ 40,625	5.98%

Notes:
(1) Fiscal year ends September 30.
(2) Midpoint of 5.49% and 6.92%, (6.71% = (5.49% + 6.92%) / 2).
(3) Midpoint of 7.50% and 7.70%, (7.60% = (7.50% + 7.70%) / 2).
(4) Midpoint of 5.90% and 6.05%, (5.98% = (5.90% + 6.05%) / 2).
(5) Midpoint of 4.88% and 5.17%, (5.03% = (4.88% + 5.17%) / 2).
(6) Midpoint of 6.40% and 6.82%, (6.61% = (6.40% + 6.82%) / 2).
(7) Midpoint of 6.57% and 6.85%, (6.71% = (6.57% + 6.85%) / 2).
(8) Midpoint of 5.70% and 5.78%, (5.74% = (5.70% + 5.78%) / 2).
(9) Assumed equal to the composite debt cost rate of all debt excluding other long-term debt at September 30, 2007

Source of Information: 2008 Annual Form 10-K

Missouri Gas Energy
Hypothetical Example of the Inadequacy of
A DCF Return Rate Related to Book Value
When Market Value is Greater / Less than Book Value

Line No.		1 Market Value	2 Book Value with Market to Book Ratio of 180%	3 Book Value with Market to Book Ratio of 80%
1.	Per Share	$ 24.00	$ 13.33	$ 30.00
2.	DCF Cost Rate (1)	10.00%	10.00%	10.00%
3.	Return in Dollars	$ 2.400	$ 1.333	$ 3.000
4.	Dividends (2)	$ 0.840	$ 0.840	$ 0.840
5.	Growth in Dollars	$ 1.560	$ 0.493	$ 2.160
6.	Return on Market Value	10.00%	5.55% (3)	12.50% (4)
7.	Rate of Growth on Market Value	6.50% (5)	2.05% (6)	9.00% (7)

Notes:
(1) Comprised of 3.5% dividend yield and 6.5% growth.

(2) $24.00 * 3.5% yield = $0.840.

(3) $1.333 / $24.00 market value = 5.55%.

(4) $3.000 / $24.00 market value = 12.50%.

(5) Expected rate of growth per market based DCF model.

(6) Actual rate of growth when DCF cost rate is applied to book value ($1.333 possible earnings - $0.840 dividends = $0.493 for growth / $24.00 market value = 2.05%).

(7) Actual rate of growth when DCF cost rate is applied to book value ($3.000 possible earnings - $0.840 dividends = $2.160 for growth / $24.00 market value = 9.00%).

Missouri Gas Energy
Indicated Common Equity Cost Rate Through Use of the
Single Stage Discounted Cash Flow Model for the
Proxy Group of Nine Value Line Natural Gas Distribution Companies

Based upon Projected Growth in EPS

	1	2	3	4	5
	Average Dividend Yield (1)	Dividend Growth Component (2)	Adjusted Dividend Yield (3)	Growth Rate (4)	Indicated Common Equity Cost Rate (5)
Proxy Group of Nine Value Line Natural Gas Distribution Companies					
AGL Resources Inc.	5.37 %	0.11 %	5.48 %	4.25 %	9.73 %
Atmos Energy Corp.	5.36	0.12	5.48	4.65	10.13
The Laclede Group, Inc.	3.35	0.08	3.43	4.50	7.93
New Jersey Resources Corp.	3.07	0.12	3.19	7.90	11.09
Northwest Natural Gas Co.	3.61	0.11	3.72	6.10	9.82
Piedmont Natural Gas Co., Inc.	3.82	0.15	3.97	7.65	11.62
South Jersey Industries, Inc.	3.05	0.11	3.16	7.25	10.41
Southwest Gas Corporation	3.62	0.10	3.72	5.75	9.47
WGL Holdings, Inc.	4.31	0.08	4.39	3.75	8.14
Average	3.95 %	0.11 %	4.06 %	5.76 %	9.82 %
Median	3.62 %	0.11 %	3.72 %	5.75 %	9.82 %
Southern Union Company	4.49 %	0.20 %	4.69 %	9.05 %	13.74 %

Notes:
(1) From Schedule FJH-12.
(2) This reflects a growth rate component equal to one-half the conclusion of growth rate (from page 1 of Schedule FJH-14) x Column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for AGL Resources Inc., 5.37% x (1/2 x 4.25%) = 0.11%.
(3) Column 1 + Column 2.
(4) From page 1 of Schedule FJH-14.
(5) Column 3 + Column 4.

Missouri Gas Energy
Derivation of Dividend Yield for Use in the
Discounted Cash Flow Model

	Dividend Yield		
	Spot (2/13/2009)(1)	Average of Last 2 Months (2)	Average Dividend Yield (3)
Proxy Group of Nine Value Line Natural Gas Distribution Companies			
AGL Resources Inc.	5.34 %	5.40 %	5.37 %
Atmos Energy Corp.	5.24	5.47	5.36
The Laclede Group, Inc.	3.40	3.30	3.35
New Jersey Resources Corp.	3.16	2.97	3.07
Northwest Natural Gas Co.	3.60	3.63	3.61
Piedmont Natural Gas Co., Inc.	4.00	3.65	3.82
South Jersey Industries, Inc.	3.15	2.95	3.05
Southwest Gas Corporation	3.72	3.53	3.62
WGL Holdings, Inc.	4.24	4.38	4.31
Average	3.98 %	3.92 %	3.95 %
Median	3.72 %	3.63 %	3.62 %
Southern Union Company	4.35 %	4.63 %	4.49 %

Notes:

(1) The spot dividend yield is the current annualized dividend per share divided by the spot market price on 2/13/2009.

(2) The average 2-month dividend yield was computed by relating the indicated annualized dividend rate and market price on the last trading day of each of the Two months ended 1/31/2009.

(3) Equal weight has been given to the 2-month average and spot dividend yield. This provides recognition of current conditions, but does not place undue emphasis thereon.

Source of Information: yahoo.finance.com

Missouri Gas Energy
Current Institutional Holdings and Individual Holdings for the
Proxy Group of Nine Value Line Natural Gas Distribution Companies
and Southern Union Company

	1 February 13, 2009 Percentage of Institutional Holdings	2 February 13, 2009 Percentage of Individual Holdings (1)
Proxy Group of Nine Value Line Natural Gas Distribution Companies		
AGL Resources Inc.	66.10 %	33.90 %
Atmos Energy Corp.	58.49	41.51
The Laclede Group, Inc.	51.52	48.48
New Jersey Resources Corp.	58.61	41.39
Northwest Natural Gas Co.	57.72	42.28
Piedmont Natural Gas Co., Inc.	44.85	55.15
South Jersey Industries, Inc.	57.30	42.70
Southwest Gas Corporation	75.03	24.97
WGL Holdings, Inc.	0.00	100.00
Average	52.18 %	47.82 %
Median	57.72 %	42.28 %
Southern Union Company	75.09 %	24.91 %

Notes: (1) (1 - column 1).

Source of Information: today.reuters.com, updated February 13, 2009

Schedule FJH-13

Missouri Gas Energy
Historical and Projected Growth

	1	2		3
	Value Line Projected Growth 2011-2013 (1)	Reuters Mean Consensus Projected Five Year Growth Rate		Average Projected Five Year Growth Rate in EPS (2)
	EPS	EPS	No. of Est.	
Proxy Group of Nine Value Line Natural Gas Distribution Companies				
AGL Resources Inc.	3.00 %	5.50 %	[2]	4.25 %
Atmos Energy Corp.	4.50	4.80	[5]	4.65
The Laclede Group, Inc.	4.50	NA	NA	4.50
New Jersey Resources Corp.	9.50	6.30	[3]	7.90
Northwest Natural Gas Co.	7.00	5.20	[3]	6.10
Piedmont Natural Gas Co., Inc.	7.50	7.80	[4]	7.65
South Jersey Industries, Inc.	6.00	8.50	[2]	7.25
Southwest Gas Corporation	6.50	5.00	[3]	5.75
WGL Holdings, Inc.	3.50	4.00	[1]	3.75
Average	5.78 %	5.89 %		5.76 %
Median	6.00 %	5.35 %		5.75 %
Southern Union Company	9.50 %	8.60 %	[1]	9.05 %

NA= Not Applicable

Notes: (1) As shown on pages 2 through 11 of this Schedule.

(2) Average of Columns 1 and 2.

Source of Information: Value Line Investment Survey Standard Edition December 12, 2008.

Reuters Company Research February 13, 2009

AGL RESOURCES NYSE-ATG

RECENT PRICE 28.54 | P/E RATIO 10.2 (Trailing: 11.0 / Median: 14.0) | RELATIVE P/E RATIO 1.00 | DIV'D YLD 6.0% | VALUE LINE

TIMELINESS 3 Raised 11/7/08
SAFETY 2 New 12/7/07
TECHNICAL 3 Raised 12/21/07
BETA .75 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	55	(+95%)	21%
Low	35	(+40%)	7.5%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	0	0	0	0	0	0
Options	3	2	1	0	3	0	0	1	0
to Sell	0	1	0	0	2	0	0	1	0

Institutional Decisions

	3Q2007	4Q2007	1Q2008
to Buy	105	131	92
to Sell	127	105	130
Hld's(000)	47695	48762	49796

LEGENDS
1.25 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 12/95
Options: Yes
Shaded area: prior recession
Latest recession began 12/07

Target Price Range 2011 2012 2013

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-14.6	-41.9
3 yr.	-2.7	-32.8
5 yr.	20.7	-10.8

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	20.43	22.73	23.59	19.32	21.91	22.76	23.36	18.71	11.25	19.04	15.32	15.25	23.69	34.98	33.73	32.84	35.40	35.90	Revenues per sh A	41.25
	2.31	2.25	2.24	2.33	2.49	2.42	2.85	2.29	2.88	3.31	3.39	3.47	3.29	4.20	4.50	4.84	4.70	4.80	"Cash Flow" per sh	5.40
	1.13	1.08	1.17	1.33	1.37	1.37	1.41	.91	1.29	1.50	1.62	2.09	2.28	2.48	2.72	2.72	2.70	2.80	Earnings per sh A B	3.15
	1.03	1.04	1.04	1.04	1.06	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.11	1.15	1.30	1.48	1.64	1.68	Div'ds Decl'd per sh C=	1.84
	2.74	2.49	2.37	2.17	2.37	2.69	2.05	2.51	2.92	2.63	3.30	2.46	3.44	3.44	3.26	3.39	4.20	4.35	Cap'l Spending per sh	5.60
	9.76	9.90	10.19	10.12	10.56	10.99	11.42	11.59	11.80	12.19	12.62	14.66	13.06	19.20	20.71	21.74	22.60	22.75	Book Value per sh D	22.15
	48.59	49.72	50.86	55.02	55.70	55.60	57.30	57.10	54.00	55.10	56.70	64.60	76.70	77.70	77.70	76.40	77.00	78.50	Common Shs Outst'g E	80.00
	15.5	17.0	16.1	12.6	13.6	14.7	13.9	21.4	13.6	14.5	12.5	12.5	13.1	14.3	13.5	14.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	15.0
	.94	1.06	.99	.84	.86	.85	.72	1.22	.89	.76	.68	.71	.69	.78	.73	.78			Relative P/E Ratio	1.00
	5.0%	5.4%	5.8%	6.2%	5.6%	5.4%	5.5%	5.5%	6.2%	4.9%	4.7%	4.3%	3.8%	3.7%	4.0%	4.1%			Avg Ann'l Div'd Yield	3.8%
							1338.6	1058.9	607.4	1049.3	868.9	993.7	1832.0	2718.0	2621.0	2494.0	2725	2800	Revenues ($mill) A	3300
							80.8	52.1	71.1	82.3	103.0	132.4	183.0	199.0	212.0	210.5	210	220	Net Profit ($mill)	250
							32.5%	33.1%	34.3%	40.7%	35.0%	35.9%	37.0%	37.7%	37.6%	37.5%	39.0%	38.0%	Income Tax Rate	38.0%
							6.0%	4.9%	11.7%	7.8%	11.8%	13.3%	9.4%	7.3%	8.1%	8.4%	7.7%	7.9%	Net Profit Margin	7.6%
							47.5%	45.3%	45.9%	61.3%	58.3%	50.3%	54.0%	51.9%	50.2%	50.2%	49.0%	49.0%	Long-Term Debt Ratio	45.5%
							47.1%	49.2%	48.3%	38.7%	41.7%	49.7%	46.0%	48.1%	49.8%	49.8%	51.0%	51.0%	Common Equity Ratio	54.5%
							1336.4	1345.5	1285.2	1736.3	1704.3	1691.4	3008.0	3114.0	3231.0	3335.0	3415	3425	Total Capital ($mill)	3400
							1534.0	1598.5	1637.5	2058.9	2164.2	2552.4	3176.0	3271.0	3439.0	3569.0	3750	3950	Net Plant ($mill)	4200
							7.6%	5.7%	7.4%	6.5%	6.1%	6.9%	6.3%	7.9%	6.0%	7.7%	7.5%	7.5%	Return on Total Cap'l	8.5%
							11.1%	7.1%	10.2%	12.3%	14.5%	14.0%	11.0%	12.9%	13.2%	12.7%	12.0%	12.5%	Return on Shr. Equity	13.5%
							12.3%	7.9%	11.5%	12.3%	14.5%	14.0%	11.0%	12.9%	13.2%	12.7%	12.0%	12.5%	Return on Com Equity	13.5%
							4.4%	NMF	3.2%	4.2%	7.0%	6.5%	5.5%	6.2%	6.3%	5.3%	4.5%	5.0%	Retained to Com Eq	5.5%
							64%	101%	72%	65%	62%	63%	49%	62%	62%	68%	62%	61%	All Div'ds to Net Prof	63%

CAPITAL STRUCTURE as of 9/30/08
Total Debt $2444.0 mill. Due in 5 Yrs $1088 mill.
LT Debt $1875.0 mill. LT Interest $85.0 mill.
(Total interest coverage: 3.8x)

Leases, Uncapitalized Annual rentals $26.0 mill.

Pension Assets-12/07 $383.0 mill.
Oblig. $427.0 mill.

Pfd Stock None
Common Stock 76,780,439 shs.
as of 10/22/08

MARKET CAP: $2.2 billion (Mid Cap)

CURRENT POSITION ($MILL.)

	2006	2007	9/30/08
Cash Assets	20.0	21.0	11.0
Other	1802.0	1790.0	1929.0
Current Assets	1822.0	1811.0	1940.0
Accts Payable	213.0	172.0	181.0
Debt Due	639.0	580.0	769.0
Other	876.0	893.0	872.0
Current Liab.	1627.0	1645.0	1822.0
Fix. Chg. Cov.	397%	391%	390%

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	3.5%	13.5%	3.5%
"Cash Flow"	6.5%	7.0%	3.5%
Earnings	7.0%	15.0%	3.0%
Dividends	2.5%	4.0%	4.0%
Book Value	6.5%	10.5%	2.0%

QUARTERLY REVENUES ($ mill.)

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	908	430	387	993	2718
2006	1044	439	434	707	2621
2007	973	467	369	685	2494
2008	1012	444	539	730	2725
2009	1040	480	505	775	2800

EARNINGS PER SHARE B

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.14	.30	.19	.85	2.48
2006	1.41	.25	.45	.60	2.72
2007	1.29	.40	.17	.86	2.72
2008	1.16	.30	.26	.98	2.70
2009	1.20	.35	.30	.95	2.80

QUARTERLY DIVIDENDS PAID C=

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.28	.29	.29	.29	1.15
2005	.31	.31	.31	.37	1.30
2006	.37	.37	.37	.37	1.48
2007	.41	.41	.41	.41	1.64
2008	.42	.42	.42	.42	

BUSINESS: AGL Resources, Inc. is a public utility holding company. Its distribution subsidiaries include Atlanta Gas Light, Chattanooga Gas, and Virginia Natural Gas. The utilities have more than 2.2 million customers in Georgia, Virginia, Tennessee, New Jersey, Florida, and Maryland. Engaged in nonregulated natural gas marketing and other allied services. Also wholesales and retails propane. Deregulated subsidiaries: Georgia Natural Gas markets natural gas at retail. Sold Utilipro, 3/01. Acquired Compass Energy Services, 10/07. Officers/directors own less than 1.0% of common (3/08 Proxy). Pres. & CEO: John W. Somerhalder II, Inc.: GA. Addr.: Ten Peachtree Place N.E., Atlanta, GA 30309. Telephone: 404-584-4000. Internet: www.aglresources.com.

Shares of AGL Resources have held up relatively well since our September review, despite considerable weakness in the broader market. The company reported healthy performance in the third quarter. Revenues and share earnings advanced considerably in the recent interim. This was primarily due to strength in the Wholesale Services business, which reported much higher operating income for the period. Elsewhere, performance at the Distribution Operations was helped by greater pipeline replacement revenues for Atlanta Gas Light. However, the utility operations continued to be dampened by weakness in the housing market, and customer growth has slowed significantly in recent times. Despite the challenging economic environment, healthy performance should continue at the company's core businesses. Thus, we anticipate solid results at AGL Resources going forward.

The company continues to progress with its capital projects. The Hampton Roads Crossing Project remains on schedule and within budget. This initiative will connect two pipeline systems crossing the Hampton Roads harbor, and provide for an ample supply of natural gas to the region. The project will likely be completed late in 2009, and ought to earn solid returns for the company. Elsewhere, construction continues on the Spindletop salt dome in Beaumont, Texas. This underground natural gas storage facility will offer up to 12 billion cubic feet (bcf) of gas capacity in two caverns. The project should meet a growing demand for natural gas storage in the region. Meantime, AGL is moving forward with the Magnolia Pipeline Project. This $48 million initiative will provide transportation of regasified liquid natural gas from Elba Island to Atlanta Gas Light in the Macon and Atlanta areas.

Overall, this stock offers attractive total return potential for a utility. We anticipate steady bottom-line growth from 2009 onward, assuming capital projects pay off. Moreover, AGL earns high marks for Safety, Price Stability, and Earnings Predictability. Income investors may find this neutrally-ranked issue's healthy dividend yield appealing. Earnings need to pick up for dividend growth to remain above average, though.

Michael Napoli, CPA December 12, 2008

(A) Fiscal year ends December 31st. Ended September 30th prior to 2002.
(B) Diluted earnings per share. Excl. nonrecurring gains (losses): '96, ($0.53); '99, $0.29; '00, $0.12; '01, $0.13; '03, ($0.07); '06, ($0.45). Next earnings report due late January/early February. (C) Dividends historically paid early March, June, Sept., and Dec. = Div'd reinvest. plan available. (D) Includes intangibles. At 9/30/08: $418 million, $5.44/share. (E) In millions, adjusted for stock split.

Company's Financial Strength B++
Stock's Price Stability 100
Price Growth Persistence 80
Earnings Predictability 65

ATMOS ENERGY CORP. NYSE-ATO

RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	
23.24	10.8 (Trailing: 11.6 Median: 16.0)	1.06	5.7%	VALUE LINE

TIMELINESS 2 Raised 12/12/08
SAFETY 2 Raised 12/15/05
TECHNICAL 2 Raised 12/12/08
BETA .65 (1.00 = Market)

High:	30.5	32.3	33.0	28.3	25.8	24.5	26.5	27.6	30.0	33.1	33.5	29.3
Low:	22.1	24.8	19.6	14.3	19.5	17.6	20.8	23.4	25.0	25.5	23.9	19.7

Target Price Range 2011 | 2012 | 2013

LEGENDS
— 1.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
Options: Yes
Shaded area: prior recession
Latest recession began 12/07

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+70%)	18%
Low	30	(+30%)	11%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	1	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	0	0	0	5	0	1	1

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	112	119	103
to Sell	103	89	119
Hld's(000)	58504	58318	56301

Percent shares traded 12 8 4

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	0.0	-41.9
3 yr.	7.7	-30.9
5 yr.	27.4	-10.0

Atmos Energy's history dates back to 1906 in the Texas Panhandle. Over the years, through various mergers, it became part of Pioneer Corporation, and, in 1981, Pioneer named its gas distribution division Energas. In 1983, Pioneer organized Energas as a separate subsidiary and distributed the outstanding shares of Energas to Pioneer shareholders. Energas changed its name to Atmos in 1988. Atmos acquired Trans Louisiana Gas in 1986, Western Kentucky Gas Utility in 1987, Greeley Gas in 1993, United Cities Gas in 1997, and others.

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
27.90	22.09	26.61	35.35	22.87	54.39	40.50	61.75	75.27	66.03	79.35	85.95	Revenues per sh A	93.05
3.38	2.62	3.01	3.03	3.39	3.23	2.81	3.90	4.26	4.14	4.20	4.40	"Cash Flow" per sh	4.65
1.84	.81	1.03	1.47	1.45	1.71	1.58	1.72	2.00	1.94	2.00	2.10	Earnings per sh A B	2.45
1.06	1.10	1.14	1.16	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	Div'ds Decl'd per sh C■	1.40
4.44	3.53	2.36	2.77	3.17	3.10	3.03	4.14	5.20	4.89	5.20	5.65	Cap'l Spending per sh	5.30
12.21	12.09	12.28	14.31	13.76	16.66	18.05	19.90	20.16	22.01	23.65	24.10	Book Value per sh	25.55
30.40	31.25	31.95	40.79	41.68	51.48	62.80	80.54	81.74	89.33	91.00	92.00	Common Shs Outst'g D	115.00
15.4	33.0	18.9	16.0	16.2	13.4	15.9	18.1	13.6	15.9	13.8		Avg Ann'l P/E Ratio	14.5
.80	1.88	1.23	.80	.83	.78	.84	.96	.73	.83	.80		Relative P/E Ratio	.95
3.7%	4.1%	5.9%	5.1%	5.4%	5.2%	4.9%	4.5%	4.7%	4.2%	4.6%		Avg Ann'l Div'd Yield	4.0%
848.2	690.2	850.2	1442.3	950.8	2799.9	2920.0	4973.3	6152.4	5898.4	7221.3	8000	Revenues ($mill) A	10700
55.3	25.0	32.2	58.1	59.7	79.5	86.2	135.8	162.3	170.6	180.3	195	Net Profit ($mill)	280
38.6%	35.0%	38.1%	37.3%	37.1%	37.1%	37.4%	37.7%	37.6%	35.8%	38.4%	38.5%	Income Tax Rate	40.0%
6.5%	3.6%	3.8%	3.9%	6.3%	2.8%	3.0%	2.7%	2.6%	2.9%	2.6%	2.4%	Net Profit Margin	2.6%
51.8%	50.0%	48.1%	54.3%	53.9%	50.2%	43.2%	57.7%	57.0%	52.0%	51.0%	51.0%	Long-Term Debt Ratio	51.0%
48.2%	50.0%	51.9%	45.7%	46.1%	49.8%	56.8%	42.3%	43.0%	48.0%	49.0%	49.0%	Common Equity Ratio	49.0%
769.7	755.1	755.7	1276.3	1243.7	1721.4	1994.8	3785.5	3828.5	4092.1	4170	4460	Total Capital ($mill)	6000
917.9	955.8	982.3	1335.4	1300.3	1516.0	1722.5	3374.4	3629.2	3836.8	4135	4350	Net Plant ($mill)	5000
9.0%	5.1%	6.5%	5.8%	6.5%	6.2%	5.8%	5.3%	6.1%	5.9%	6.0%	6.0%	Return on Total Cap'l	6.0%
14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	9.0%	9.0%	Return on Shr. Equity	9.5%
14.9%	6.6%	8.2%	9.6%	10.4%	9.3%	7.6%	8.5%	9.8%	8.7%	9.0%	9.0%	Return on Com Equity	9.5%
6.3%	NMF	NMF	2.1%	1.9%	2.8%	1.7%	2.3%	3.5%	3.0%	3.0%	3.5%	Retained to Com Eq	4.0%
68%	NMF	112%	79%	82%	70%	77%	73%	63%	65%	65%	62%	All Div'ds to Net Prof	58%

CAPITAL STRUCTURE as of 6/30/08
Total Debt $2234.0 mill. Due in 5 Yrs $920.0 mill.
LT Debt $2119.7 mill. LT Interest $125.0 mill.
(LT interest earned: 2.8x; total interest coverage: 2.8x)
Leases, Uncapitalized Annual rentals $16.9 mill.
Pfd Stock None
Pension Assets-9/07 $389.1 mill. Oblig. $335.6 mill.
Common Stock 90,627,522 shs. as of 7/31/08
MARKET CAP: $2.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	6/30/08
Cash Assets	75.8	60.7	46.5
Other	1041.7	1008.2	1350.5
Current Assets	1117.5	1068.9	1397.0
Accts Payable	345.1	355.3	582.4
Debt Due	385.6	154.4	114.3
Other	388.5	410.0	472.1
Current Liab.	1119.2	919.7	1168.8
Fix. Chg. Cov.	408%	405%	410%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.5%	18.0%	5.5%
"Cash Flow"	4.0%	5.5%	2.0%
Earnings	3.5%	7.5%	4.5%
Dividends	2.5%	1.5%	2.0%
Book Value	7.0%	9.0%	3.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	1371.0	1887.8	809.9	1004.6	4973.3
2006	2283.8	2033.8	963.2	871.6	6152.4
2007	1602.6	2075.6	1218.2	1002.0	5898.4
2008	1657.5	2484.0	1639.1	1440.7	7221.3
2009	1855	2925	1735	1485	8000

Fiscal Year Ends	EARNINGS PER SHARE A B E Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.79	1.11	.06	d.21	1.72
2006	.88	1.10	d.22	.25	2.00
2007	.97	1.20	d.16	d.05	1.94
2008	.82	1.24	d.07	.02	2.00
2009	.90	1.30	d.06	d.04	2.10

Cal-endar	QUARTERLY DIVIDENDS PAID C■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.305	.305	.305	.31	1.23
2005	.31	.31	.31	.315	1.25
2006	.315	.315	.315	.32	1.27
2007	.32	.32	.32	.325	1.29
2008	.325	.325	.325	.33	

BUSINESS: Atmos Energy Corporation is engaged primarily in the distribution and sale of natural gas to 3.2 million customers via six regulated natural gas utility operations: Louisiana Division, West Texas Division, Mid-Tex Division, Mississippi Division, Colorado-Kansas Division, and Kentucky/Mid-States Division. Combined 2007 gas volumes: 297 MMcf. Breakdown: 56%, residential; 32%, commercial; 8%, industrial; and 4% other. 2007 depreciation rate 3.7%. Has around 4,470 employees. Officers and directors own approximately 1.8% of common stock (12/07 Proxy). Chairman and Chief Executive Officer: Robert W. Best. Incorporated: Texas. Address: P.O. Box 650205, Dallas, Texas 75265. Telephone: 972-934-9227. Internet: www.atmosenergy.com.

Atmos Energy's core natural gas utility stands to perform decently in fiscal 2009 (began on October 1st). That division should benefit from a rise in throughput, plus more aggressive collection efforts, which should keep bad debt expense under control. Note that revenues from pending rate cases are excluded from our presentation.

We are constructive about the other operations, as well. The regulated transmission and storage segment ought to be boosted by healthy transportation volumes from production in the Barnett Shale region of Texas. Moreover, respectable results seem achievable for the nonregulated marketing segment. But that unit's record showing in fiscal 2006 (when it was able to capture highly favorable arbitrage spreads created by natural gas volatility) probably won't be repeated.

Consolidated share net may rise around 5%, to $2.10, this fiscal year. One threat to this estimate is higher interest expense. The company has normally used short-term commercial paper to finance natural gas purchases. But Atmos had to access a line of credit when the commercial paper market froze. Efficiency gains may provide an offset, though. We expect a similar rate of bottom-line growth (to $2.20 a share) in fiscal 2010.

Steady, albeit unspectacular, annual earnings gains appear to be in store over the 2011-2013 horizon. The utility is one of the country's leading natural gas-only distributors, serving some 3.2 million customers across 12 states. Furthermore, the unregulated segments (contributing between 15% and 35% to net income annually on a historical basis) seem to possess healthy overall prospects. Finally, management should continue to implement its successful strategy of purchasing less-efficient utilities and shoring up their profitability via expense-reduction efforts, rate relief, and aggressive marketing.

These good-quality shares offer a healthy dose of current dividend income, which is adequately covered by earnings. Continued moderate increases in the distribution seem likely, too.

Total return prospects look decent, on a risk-adjusted basis. Also, the stock is ranked 2 (Above Average) for Timeliness.

Frederick L. Harris, III December 12, 2008

(A) Fiscal year ends Sept. 30th. (B) Diluted shrs. Excl. nonrec. items: '99, d23¢; '00, 12¢; '03, d17¢; '06, d18¢; '07, d2¢. Next egs. rpt. due early Feb. (C) Dividends historically paid in early March, June, Sept., and Dec. ■ Div. reinvestment plan. Direct stock purchase plan avail. (D) In millions. (E) Qtrs may not add due to change in shrs outstanding. (F) ATO completed United Cities merger 7/97.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	40
Earnings Predictability	80

LACLEDE GROUP NYSE-LG

RECENT PRICE 48.89 | P/E RATIO 21.2 (Trailing: 19.1 / Median: 15.0) | RELATIVE P/E RATIO 2.08 | DIV'D YLD 3.1% | VALUE LINE

TIMELINESS 2 Raised 10/10/08
SAFETY 2 Raised 6/20/03
TECHNICAL 1 Raised 12/5/08
BETA .85 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	60	(+25%)	8%
Low	45	(-10%)	3%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	0	0	0	0	0	0
Options	0	0	1	0	0	0	0	2	0
to Sell	0	0	1	0	0	0	0	2	0

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	72	97	82
to Sell	65	60	72
Hld's(000)	10492	11750	11943

	High:	28.8	27.9	27.0	24.9	25.5	25.0	30.0	32.6	34.3	37.6	36.0	55.6		Target Price Range		
	Low:	20.3	22.4	20.0	17.5	21.3	19.0	21.8	26.0	26.9	29.1	26.8	31.9		2011	2012	2013

LEGENDS
1.00 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area: prior recessions
Latest recession began 12/07

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	53.3	-41.9
3 yr.	100.2	-30.9
5 yr.	124.7	-10.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
26.83	32.33	33.43	24.79	31.03	34.33	31.04	26.04	29.99	53.09	39.84	64.95	69.69	75.43	93.51	93.40	100.40	96.00	Revenues per sh	111.75
2.32	2.81	2.65	2.55	3.29	3.32	3.02	2.58	2.63	3.09	2.56	3.15	2.79	2.88	3.81	3.87	4.20	4.30	"Cash Flow" per sh	5.30
1.17	1.51	1.42	1.27	1.87	1.84	1.58	1.47	1.37	1.51	1.18	1.82	1.82	1.80	2.37	2.31	2.54	2.50	Earnings per sh A B	2.85
1.20	1.22	1.22	1.24	1.26	1.30	1.32	1.34	1.34	1.34	1.34	1.34	1.35	1.37	1.40	1.45	1.49	1.53	Div'ds Decl'd per sh C=	1.65
2.87	2.62	2.50	2.63	2.35	2.44	2.68	2.58	2.77	2.51	2.85	2.87	2.45	2.84	2.87	2.72	2.55	2.65	Cap'l Spending per sh	3.40
11.79	12.19	12.44	13.05	13.72	14.28	14.67	14.96	14.89	15.28	15.07	15.55	16.93	17.31	18.85	19.79	22.10	21.90	Book Value per sh D	26.00
15.59	15.59	15.67	17.42	17.56	17.56	17.53	18.88	18.88	18.88	18.96	19.11	20.98	21.17	21.36	21.65	22.00	22.50	Common Shs Outst'g E	23.50
15.5	13.5	16.4	15.5	11.9	12.6	15.6	15.5	14.9	14.5	20.0	13.6	15.7	16.2	13.5	14.2	14.3		Avg Ann'l P/E Ratio	18.0
.96	.80	1.05	1.04	.75	.72	.81	.90	.97	.74	1.09	.78	.83	.86	.73	.75	.85		Relative P/E Ratio	1.20
6.5%	6.6%	5.3%	6.3%	5.6%	5.6%	5.4%	5.8%	5.6%	5.7%	5.7%	5.4%	4.7%	4.4%	4.3%	4.4%	3.8%		Avg Ann'l Div'd Yield	3.1%
547.2	481.6	556.1	1002.1	765.2	1050.3	1250.3	1597.0	1997.6	2021.8	2209.0	2160	Revenues ($mill) A	2950
27.9	28.9	28.0	30.5	22.4	84.6	38.1	40.1	59.6	49.8	67.5	66.5	Net Profit ($mill)	75.0
35.6%	35.5%	35.2%	32.7%	35.4%	35.0%	34.8%	34.1%	32.6%	33.4%	31.3%	31.5%	Income Tax Rate	35.0%
5.1%	5.6%	4.6%	3.0%	3.0%	3.3%	2.8%	2.5%	2.5%	2.5%	2.5%	2.5%	Net Profit Margin	2.7%
40.9%	41.5%	45.2%	49.5%	47.5%	50.4%	51.5%	46.1%	48.5%	45.3%	44.5%	45.0%	Long-Term Debt Ratio	47.0%
59.5%	57.8%	54.5%	50.2%	52.3%	49.4%	48.2%	51.8%	50.4%	54.6%	55.5%	55.0%	Common Equity Ratio	53.0%
438.0	468.5	518.2	574.1	646.6	695.0	737.4	707.9	768.9	784.5	875	895	Total Capital ($mill)	1250
490.6	518.4	576.4	602.5	694.4	621.2	646.8	678.5	763.8	793.8	825	855	Net Plant ($mill)	1150
6.1%	7.1%	6.7%	6.9%	6.0%	7.4%	6.6%	7.5%	6.4%	6.5%	6.0%	7.5%	Return on Total Cap'l	7.5%
10.5%	9.5%	9.1%	10.5%	7.8%	11.5%	10.1%	10.9%	12.5%	11.5%	12.0%	11.5%	Return on Shr. Equity	11.5%
10.8%	9.5%	9.1%	10.5%	7.8%	11.5%	10.1%	10.9%	12.5%	11.0%	12.0%	11.5%	Return on Com Equity	11.5%
1.8%	1.0%	.2%	1.8%	NMF	3.1%	2.7%	3.1%	5.1%	4.3%	5.0%	4.5%	Retained to Com Eq	5.0%
83%	89%	98%	83%	113%	74%	75%	72%	59%	63%	57%	61%	All Div'ds to Net Prof	65%

CAPITAL STRUCTURE as of 6/30/08
Total Debt $388.0 mill. Due in 5 Yrs $275.0 mill.
LT Debt $309.2 mill. LT Interest $20.0 mill.
(Total interest coverage: 3.0x)

Leases, Uncapitalized Annual rentals $.9 mill.
Pension Assets-9/07 $260.3 mill.
Oblig. $283.3 mill.
Pfd Stock $.5 mill. Pfd Div'd $.04 mill.
Common Stock 21,971,760 shs.
as of 9/5/08

MARKET CAP: $1.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	6/30/08
Cash Assets	50.8	52.7	33.0
Other	409.0	414.6	395.9
Current Assets	459.8	467.3	428.9
Accts Payable	103.3	108.8	191.4
Debt Due	207.5	251.8	58.8
Other	120.1	116.3	75.3
Current Liab.	430.9	473.7	325.5
Fix. Chg. Cov.	285%	282%	285%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	11.5%	16.5%	4.5%
"Cash Flow"	1.5%	6.5%	7.0%
Earnings	3.0%	6.5%	4.5%
Dividends	1.0%	1.0%	2.5%
Book Value	8.0%	4.5%	5.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) A				Full Fiscal Year
	Dec.31	Mar.31	Jun.30	Sep.30	
2005	442.5	676.5	311.3	266.7	1597.0
2006	589.2	709.8	330.6	269.0	1997.6
2007	539.6	709.8	457.9	323.9	2021.8
2008	504.0	747.7	606.5	451.8	2209.0
2009	540	540	540	540	2160

Fiscal Year Ends	EARNINGS PER SHARE A B C				Full Fiscal Year
	Dec.31	Mar.31	Jun.30	Sep.30	
2005	.78	1.06	.29	d.24	1.80
2006	1.23	1.05	.13	d.04	2.37
2007	.89	.97	.43	.03	2.31
2008	.99	1.39	.41	d.14	2.64
2009	.95	1.15	.33	.05	2.50

Cal-endar	QUARTERLY DIVIDENDS PAID C=				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2005	.34	.345	.345	.345	1.38
2006	.345	.355	.355	.355	1.41
2007	.355	.365	.365	.365	1.46
2008	.375	.375	.375	.375	1.50
2009	.385				

BUSINESS: Laclede Group, Inc. is a holding company for Laclede Gas, which distributes natural gas in eastern Missouri, including the city of St. Louis, St. Louis County, and parts of 10 other counties. Has roughly 632,000 customers. Purchased SM&P Utility Resources, 1/02; divested, 9/05. Thermo sold and transported in fiscal 2007: 1.12 mill. Revenue mix for regulated operations: residential, 60%; commercial and industrial, 24%; transportation, 1%; other, 15%. Has around 3,845 employees. Officers and directors own approximately 7.0% of common shares (1/08 proxy). Chairman, Chief Executive Officer, and President: Douglas H. Yaeger. Incorporated: Missouri. Address: 720 Olive Street, St. Louis, Missouri 63101. Telephone: 314-342-0500. Internet: www.thelacledegroup.com.

We do not believe that Laclede Group's share net in fiscal 2009 (which began on October 1st) will reach last year's level, attributable mainly to the difficult comparison. Regarding Laclede Gas, accounting for the biggest portion of profits, it appears that the substantial rate increase effective August 1st of 2007 won't be repeated. Furthermore, there may not be a recording of additional previously unrecognized tax benefits here. Meanwhile, Laclede Energy Resources stands to have a respectable performance (depending greatly on natural gas price volatility), but we do not anticipate a reversal of more tax-related expenses. All things considered, consolidated share net ought to decrease roughly 6%, to $2.50, this fiscal year. Laclede Group's bottom line could expand in the mid-single-digit range (to $2.60 a share) in fiscal 2010, assuming additional expansion in operating margins.

Steady, if unspectacular, earnings increases seem achievable over the 3- to 5-year timeframe. Expansion of the customer base for the natural gas distribution unit has been moderate for some time because the service area, located in eastern Missouri, is in a mature stage. That being the case, internal growth here will likely remain a challenge. The non-regulated division has promising expansion opportunities, but it has contributed just a small portion to Laclede Group's profits on a historical basis. A significant acquisition could help to offset this, but it appears that management has no such plans in the works at this juncture. Consequently, annual bottom-line advances could be only between 4% and 5% over the 2011-2013 horizon.

This favorably ranked equity offers a decent level of current dividend income, which is adequately covered by earnings. But further increases in the distribution will probably be slow in coming. This is primarily because of the regulated gas segment's unexciting long-term growth prospects.

Total-return possibilities are limited. That is attributable to these shares' relatively high present quotation and our expectation of moderate increases in the dividend.

Frederick L. Harris, III December 12, 2008

(A) Fiscal year ends Sept. 30th.
(B) Based on average shares outstanding thru. '97, then diluted. Excludes nonrecurring loss: '05, 7¢. Excludes gain from discontinued operations: '08, 94¢. Next earnings report due late Jan. (C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available. (D) Incl. deferred charges. In '07: $269.7 mill., $13.36/sh. (E) In millions. (F) City. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	60
Earnings Predictability	75

NEW JERSEY RES. NYSE-NJR

RECENT PRICE 38.42 | P/E RATIO 12.2 (Trailing: 14.2 / Median: 15.0) | RELATIVE P/E RATIO 1.20 | DIV'D YLD 3.2% | VALUE LINE

TIMELINESS 2 Raised 11/28/08
SAFETY 1 Raised 9/15/06
TECHNICAL 2 Raised 11/21/08
BETA .70 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+15%)	7%
Low	35	(-9%)	4%

Insider Decisions

	J	F	M	A	M	J	J	A	S	O	N	D
to Buy	0	0	0	0	0	0	0	0	0	0	0	0
Options	2	0	0	1	2	0	1	1	0	0	0	0
to Sell	0	2	0	0	2	0	0	1	0	0	1	0

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	85	89	64
to Sell	70	62	88
Hld's(000)	25518	26910	26312

High: 18.7 17.9 16.3 19.8 21.7 22.4 26.4 29.7 32.9 35.4 37.5 41.1
Low: 12.5 14.0 14.0 16.1 16.6 18.2 20.0 24.3 27.1 27.7 30.3 24.6

LEGENDS
1.40 x Dividends p sh divided by Interest Rate
Relative Price Strength
3-for-2 split 2002
3-for-2 split 2008
Options: No
Shaded areas indicate recessions
Latest recession began 12/07

Target Price Range 2011 | 2012 | 2013

% TOT. RETURN 11/08

	THIS STOCK	VALUE LINE ARITH. INDEX
1 yr.	23.5	-41.9
3 yr.	58.0	-30.8
5 yr.	64.1	-10.5

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	'11-13
11.25	12.02	12.81	11.36	13.48	17.31	17.73	22.65	29.42	51.22	44.11	52.29	60.89	76.19	79.63	72.62	91.12	82.45	Revenues per sh A	97.50
1.30	1.42	1.54	1.42	1.48	1.63	1.74	1.86	1.99	2.12	2.14	2.36	2.50	2.62	2.73	2.44	3.64	3.70	"Cash Flow" per sh	3.90
.75	.76	.84	.86	.92	.99	1.04	1.11	1.20	1.30	1.39	1.59	1.70	1.77	1.87	1.55	2.70	2.80	Earnings per sh B	3.00
.55	.55	.58	.63	.69	.71	.73	.75	.76	.78	.80	.83	.87	.91	.95	1.01	1.11	1.24	Div'ds Decl'd per sh C=	1.35
1.33	1.54	1.40	1.18	1.19	1.16	1.07	1.21	1.23	1.16	1.02	1.14	1.45	1.28	1.28	1.48	1.75	1.75	Cap'l Spending per sh	1.80
6.29	6.54	6.43	6.47	6.73	6.92	7.25	7.67	8.23	8.80	8.71	10.26	11.25	10.60	15.00	16.50	17.36	19.35	Book Value per sh D	25.75
36.64	37.84	38.85	40.03	40.59	40.23	40.07	39.92	39.69	40.00	41.60	49.85	41.61	41.32	41.44	41.61	41.58	42.50	Common Shs Outst'g E	44.00
12.4	16.1	13.0	11.7	13.6	13.5	15.2	15.2	14.7	14.2	14.7	14.0	15.2	16.8	18.1	21.5	12.3		Avg Ann'l P/E Ratio	14.0
.75	.85	.85	.78	.85	.78	.80	.87	.89	.73	.80	.80	.81	.69	.87	1.13	.73		Relative P/E Ratio	.95
7.5%	6.8%	6.2%	6.7%	5.6%	5.3%	4.6%	4.6%	4.4%	4.2%	3.9%	3.7%	3.3%	3.1%	3.2%	3.0%	3.3%		Avg Ann'l Div'd Yield	3.4%

CAPITAL STRUCTURE as of 9/30/08
Total Debt $693.4 mill. Due in 5 Yrs $175.6 mill.
LT Debt $455.1 mill. LT Interest $16.9 mill.
Incl. $8.6 mill. capitalized leases.
(LT interest earned: 4.8x; total interest coverage: 4.8x)
Pension Assets-9/08 $90.6 mill.
Oblig. $102.4 mill.
Pfd Stock None

Common Stock 42,120,169 shs.
as of 11/28/08
MARKET CAP: $1.6 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	9/30/08
Cash Assets	5.0	5.1	42.6
Other	860.5	784.8	1067.1
Current Assets	865.5	789.9	1109.7
Accts Payable	45.8	64.4	61.7
Debt Due	264.4	260.6	238.3
Other	566.0	378.1	594.0
Current Liab.	897.2	703.3	894.0
Fix. Chg. Cov.	570%	461%	450%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-13
Revenues	18.5%	13.0%	4.5%
"Cash Flow"	5.5%	4.5%	7.0%
Earnings	8.5%	6.0%	8.5%
Dividends	9.5%	4.0%	6.0%
Book Value	7.5%	10.0%	11.0%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill) A Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	854.1	1055	644.3	684.9	3148.3
2006	1164	1084	536.1	535.5	3289.6
2007	737.4	1029	662.2	593.2	3021.8
2008	811.1	1178	1000	827.1	3816.2
2009	850	1190	1050	840	3930

Fiscal Year Ends	EARNINGS PER SHARE A B Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.61	1.23	.05	d.12	1.77
2006	.82	1.43	d.09	d.28	1.87
2007	.70	.19	.50	.06	1.55
2008	.87	.30	d.18	1.86	2.70
2009	.90	.40	--	1.50	2.80

Calendar	QUARTERLY DIVIDENDS PAID C Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.217	.217	.217	.217	.87
2005	.227	.227	.227	.227	.91
2006	.24	.24	.24	.24	.96
2007	.253	.253	.253	.253	1.01
2008	.267	.28	.28	.28	

710.3	804.3	1164.5	2048.4	1930.8	2544.4	2533.6	3148.3	3289.6	3021.8	3816.2	3930	Revenues ($mill) A	4295
43.3	44.9	47.9	52.3	58.8	65.4	71.6	74.4	78.5	65.3	113.9	120	Net Profit ($mill)	130
30.4%	36.2%	37.6%	38.0%	38.7%	39.4%	39.1%	39.1%	38.6%	38.6%	37.8%	39.0%	Income Tax Rate	40.0%
6.1%	5.6%	4.1%	2.6%	3.1%	2.6%	2.8%	2.4%	2.4%	2.2%	3.0%	3.1%	Net Profit Margin	3.0%
51.2%	48.7%	47.0%	50.1%	50.6%	53.1%	40.3%	42.0%	34.6%	37.3%	34.6%	38.0%	Long-Term Debt Ratio	32.5%
45.8%	51.2%	52.9%	49.8%	49.4%	51.9%	59.7%	58.0%	65.2%	62.7%	61.5%	62.0%	Common Equity Ratio	67.5%
633.2	690.4	820.1	706.2	732.4	676.8	783.6	765.3	954.0	1026.0	1182.1	1325	Total Capital ($mill)	1580
680.0	705.4	730.6	743.9	758.4	852.6	890.4	895.1	934.9	970.9	1017.3	1040	Net Plant ($mill)	1100
8.1%	9.0%	9.0%	8.5%	8.7%	10.7%	10.1%	11.2%	9.5%	7.7%	10.7%	10.0%	Return on Total Cap'l	8.5%
13.9%	14.8%	14.6%	14.8%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	15.7%	14.5%	Return on Shr. Equity	11.5%
14.4%	14.8%	14.6%	14.0%	15.7%	15.6%	15.3%	17.0%	12.6%	10.1%	15.7%	14.5%	Return on Com Equity	11.5%
4.4%	5.0%	5.4%	5.1%	6.9%	7.7%	7.8%	8.5%	6.3%	3.5%	9.3%	8.0%	Retained to Com Eq	6.5%
71%	67%	63%	59%	55%	51%	49%	50%	50%	64%	41%	44%	All Div'ds to Net Prof	46%

BUSINESS: New Jersey Resources Corp. is a holding company providing retail/wholesale energy svcs. to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. New Jersey Natural Gas had about 478,000 customers at 9/30/07 in Monmouth and Ocean Counties, and other N.J. counties. Fiscal 2007 volume: 102.8 bill. cu. ft. (58% firm, 6% interruptible industrial and electric utility, 36% off-system and capacity release). N.J. Natural Energy subsidiary provides unregulated retail/wholesale natural gas and related energy svcs. 2007 dep. rate: 2.6%. Has 808 empls. Off./dir. own about 2% of common (12/07 Proxy). Chmn., CEO, & Pres.: Laurence M. Downes. Inc.: N.J. Addr.: 1415 Wyckoff Road, Wall, NJ 07719. Tel.: 732-938-1480. Web: www.njresources.com.

New Jersey Resources posted solid results for its fiscal fourth quarter (ended September 30th) and year. This stemmed from roughly 7,175 new customers last year, as well as about 730 conversions, which boosted results at the New Jersey Natural Gas (NJNG) division. Meanwhile, record performance from NJR Energy Services also contributed nicely.

Capital projects ought to provide room for the expansion of its midstream assets. NJR has been making progress at its Steckman Ridge storage facility in western Pennsylvania. Meanwhile, the company has drilled three wells so far, and expects to have nine others completed in 2009. This facility will provide extra capacity during the peak winter and summer months to the Northeast. Also, the completion of a new 16-inch main pipeline into the Whiting section of Manchester Township, NJ is allowing for new first-time customers.

We have raised our 2009 annual estimate by 30%. This stems a recent base rate case approval for NJNG that boosts annual revenues by $32.5 million, as well as the aforementioned capital projects. New customers at the NJNG division are expected to contribute approximately $4 million annually to utility gross margins. And there is still sizable room for that segment to grow through potential customers and conversions. The NJR Energy Services unit has benefited from its dynamic portfolio of supply storage and transportation contacts. And the Steckman Ridge facility ought to complement that mix nicely. All told, the company's prospects appear bright.

Meanwhile, the balance sheet and financial position appear strong. NJR has ample cash on hand, and solid access to capital through revolving bank credit.

These timely shares have been on a bumpy ride since our September review. Still, they are currently trading up about 6% over that interim, thanks to a dividend increase and solid earnings this past year. Meanwhile, the 10.7% hike in NJR's quarterly dividend may appeal to income-oriented accounts. And conservative investors may find the high Safety rank (1) and solid Financial Strength rating (A) comforting.

Bryan Fong *December 12, 2008*

(A) Fiscal year ends Sept. 30th.
(B) Diluted earnings. Qtly egs may not sum to total due to change in shares outstanding. Next earnings report due late Jan.
(C) Dividends historically paid in early January, April, July, and October. ■ Dividend reinvestment plan available.
(D) Includes regulatory assets in 2008: $340.7 million, $8.09/share.
(E) In millions, adjusted for split.
(F) Restated.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	65
Earnings Predictability	50

N.W. NAT'L GAS NYSE-NWN

RECENT PRICE 46.38 | P/E RATIO 17.4 (Trailing: 18.0 Median: 16.0) | RELATIVE P/E RATIO 1.71 | DIV'D YLD 3.4% | VALUE LINE

TIMELINESS 3 Raised 8/8/08
SAFETY 1 Raised 7/18/03
TECHNICAL 1 Raised 12/12/08
BETA .60 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	65	(+40%)	12%
Low	55	(+20%)	5%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	1	0	0	0	1	0	0	0
Options	0	0	0	0	0	1	0	1	2
to Sell	0	0	0	0	0	1	0	1	2

Institutional Decisions

	4Q2007	1Q2008	2Q2008
to Buy	77	78	65
to Sell	82	71	74
Hld's(000)	16772	16947	16310

	31.4	30.6	27.9	27.5	25.6	30.7	31.3	34.1	38.6	43.7	52.5	55.2			Target Price Range		
High:	23.0	24.3	19.5	17.8	21.7	23.6	24.0	27.5	32.4	32.8	38.8	37.7			2011	2012	2013
Low:																	

LEGENDS
— 3.00 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
3-for-2 split 8/99
Options: Yes
Shaded areas: prior recession
Latest recession began 12/07

% TOT. RETURN 11/08

	THIS STOCK	VALUELINE INDEX
1 yr.	7.8	-41.9
3 yr.	61.1	-30.9
5 yr.	66.6	-10.6

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
14.10	14.15	14.30	14.62	14.65	15.82	16.77	16.17	21.09	25.78	25.07	23.57	25.69	33.01	37.20	39.13	40.65	43.85	Revenues per sh	50.00
3.25	3.74	3.50	3.41	3.38	3.72	3.24	3.72	3.58	3.85	3.85	3.85	3.92	4.34	4.76	5.41	5.40	5.75	"Cash Flow" per sh	6.60
.74	1.74	1.53	1.51	1.47	1.76	1.02	1.70	1.79	1.88	1.62	1.76	1.86	2.11	2.35	2.78	2.55	2.80	Earnings per sh A	3.35
1.16	1.17	1.17	1.18	1.20	1.21	1.22	1.23	1.24	1.25	1.26	1.27	1.30	1.32	1.39	1.44	1.52	1.60	Div'ds Decl'd per sh B■	1.88
3.73	3.61	4.23	3.02	3.70	5.07	4.02	4.76	3.46	3.23	3.11	4.90	5.52	3.49	3.58	4.49	5.45	5.00	Cap'l Spending per sh	4.50
12.41	13.08	13.53	14.55	15.37	16.02	16.59	17.42	17.93	18.56	18.88	19.52	20.64	21.28	22.01	22.52	23.65	22.75	Book Value per sh	25.50
19.45	19.77	20.13	22.24	22.56	22.85	24.85	25.02	25.23	25.23	26.59	26.94	27.55	27.58	27.24	26.41	26.50	26.60	Common Shs Outst'g C	28.00
27.0	12.8	13.0	12.8	11.7	14.4	26.7	14.5	12.4	12.9	17.2	15.8	16.7	17.0	15.5	16.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	16.0
1.64	.76	.85	.85	.73	.83	1.39	.83	.81	.66	.84	.93	.85	.81	.86	.98			Relative P/E Ratio	1.20
6.7%	6.2%	6.5%	5.7%	5.2%	4.8%	4.5%	5.0%	5.5%	5.1%	4.5%	4.6%	4.2%	3.7%	3.7%	3.1%			Avg Ann'l Div'd Yield	3.9%
416.7	455.8	532.1	650.3	641.4	611.3	707.8	910.5	1013.2	1033.2	1000	1025	Revenues ($mill)	1400
27.3	44.9	47.5	60.2	43.8	48.0	50.6	68.1	65.2	74.5	67.5	74.0	Net Profit ($mill)	94.0
31.0%	35.4%	35.9%	35.4%	34.9%	33.7%	34.4%	36.0%	36.3%	37.2%	37.0%	37.0%	Income Tax Rate	37.0%
6.6%	9.9%	8.9%	9.3%	6.8%	7.9%	7.1%	7.5%	6.4%	7.2%	6.6%	6.4%	Net Profit Margin	6.7%
45.0%	48.0%	45.1%	43.0%	47.5%	49.7%	48.0%	47.0%	46.3%	46.3%	47.0%	48.0%	Long-Term Debt Ratio	48.0%
50.5%	49.5%	50.9%	53.2%	51.5%	50.3%	51.0%	53.0%	53.7%	53.7%	53.0%	52.0%	Common Equity Ratio	52.0%
815.6	861.5	897.8	880.5	937.3	1006.6	1052.5	1103.4	1116.5	1106.8	1150	1200	Total Capital ($mill)	1500
894.7	895.9	934.0	885.0	985.6	1205.8	1318.4	1373.4	1425.1	1465.9	1550	1650	Net Plant ($mill)	2000
6.0%	6.8%	6.7%	6.9%	6.5%	5.7%	6.9%	6.6%	7.1%	6.5%	7.5%	7.5%	Return on Total Cap'l	7.0%
6.1%	9.7%	9.8%	10.0%	8.9%	9.1%	8.9%	9.8%	10.5%	12.5%	11.5%	11.5%	Return on Shr. Equity	11.0%
6.0%	6.9%	10.0%	10.2%	8.5%	9.0%	8.9%	9.5%	10.9%	12.5%	11.5%	11.5%	Return on Com Equity	11.0%
NMF	2.8%	3.1%	3.5%	1.9%	2.6%	2.7%	3.7%	4.5%	6.0%	5.0%	5.0%	Retained to Com Eq	5.0%
110%	74%	70%	67%	78%	72%	69%	63%	59%	52%	58%	57%	All Div'ds to Net Prof	56%

CAPITAL STRUCTURE as of 9/30/08
Total Debt $668.8 mill. Due in 5 Yrs $259.8 mill.
LT Debt $512.0 mill. LT Interest $37.0 mill.

(Total interest coverage: 4.0x)

Pension Assets-12/07 $241 mill.
Oblig. $260 mill.
Pfd Stock None

Common Stock 26,470,668 shs.
as of 10/31/08
MARKET CAP: $1.2 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	9/30/08
Cash Assets	5.8	8.1	4.1
Other	303.0	266.8	279.7
Current Assets	308.8	274.9	283.8
Accts Payable	113.6	119.7	53.5
Debt Due	125.6	148.1	174.8
Other	98.3	122.1	184.0
Current Liab.	341.5	389.9	412.3
Fix. Chg. Cov.	349%	408%	NMF

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	6.5%	6.5%	6.5%
"Cash Flow"	3.0%	5.5%	6.0%
Earnings	3.0%	6.5%	7.0%
Dividends	1.5%	2.0%	5.5%
Book Value	3.0%	3.5%	3.5%

Calendar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	308.7	153.7	106.7	341.4	910.5
2006	350.4	171.0	114.9	336.9	1013.2
2007	394.1	183.2	124.2	331.7	1033.2
2008	387.7	191.3	109.7	311.3	1000
2009	380	190	120	335	1025

Calendar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	1.44	.04	d.31	.84	2.11
2006	1.48	.07	d.35	1.16	2.36
2007	1.77	.10	d.22	1.11	2.76
2008	1.63	.08	d.38	1.22	2.55
2009	1.70	.13	d.30	1.27	2.80

Calendar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.325	.325	.325	.325	1.30
2006	.325	.325	.325	.345	1.32
2006	.345	.345	.345	.355	1.39
2007	.355	.355	.355	.375	1.44
2008	.375	.375	.375	.395	

BUSINESS: Northwest Natural Gas Co. distributes natural gas to 98 communities, 657,000 customers, in Oregon (80% of customers) and in southwest Washington state. Principal cities served: Portland and Eugene, OR; Vancouver, WA. Service area population: 2.5 mill. (77% in OR). Company buys gas supply from Canadian and U.S. producers; has transportation rights on Northwest Pipeline system. Owns local underground storage. Rev. breakdown: residential, 55%; commercial, 28%; industrial, gas transportation, and other, 17%. Employs 1,130. Barclays Global owns 6.5% of shares; off'rs dir., 1.3% (4/08 proxy). CEO: Mark S. Dodson; CEO-elect: Gregg S. Kantor. Inc.: Oregon. Address: 220 NW 2nd Ave., Portland, OR 97209. Tel.: 503-226-4211. Internet: www.nwnatural.com.

Northwest Natural's third-quarter results reflected mostly unusual items. In the 2007 period, the company received a state tax refund, and in the 2008 quarter, it lost money from its gas cost-sharing mechanism in Oregon; the two items added up to about $0.12 a share of the higher year-to-year loss. (Gas utilities usually book losses in the summer quarter.) Meanwhile, customer growth, at 2.4% from September 30, 2007, was below the recent 3% pace, but still above the national average.

Lower costs should lead to a good fourth-quarter earnings gain. Despite the higher-than-expected third-quarter loss, Northwest reaffirmed its 2008 earnings-per-share guidance of $2.48-$2.63. In the final frame of 2007, Northwest spent about $3 million over its normal operating expenses, partly in connection with redoing some business practices. The absence of those costs, plus continued customer growth, should produce a good earnings boost.

We look for normal earnings growth in 2009, excluding the effects of gas cost-sharing. In the first nine months of 2008, Northwest lost about $0.17 a share from its gas cost-sharing in Oregon. The state has modified the cost-sharing procedure, so that the company now chooses to receive either 20% or 10% of the difference between actual gas costs and the prices built into rates, with the balance going to its customers. For the next year, starting in November 2008, Northwest has chosen to retain 20% of that difference, believing that it will earn a small profit from the cost-sharing arrangement.

Several projects should contribute considerably to earnings by the end of our 3- to 5-year horizon. Gill Ranch, a gas storage project near Fresno, CA, should receive approval from that state next year and open by 2011. The Palomar pipeline, a joint venture with TransCanada, would connect Portland to a second source of gas. Northwest's investment in the two projects would total about $525 million if both halves of Palomar are built. The two investments would add significantly to our out-year earnings forecast.

These top-quality shares, steady in recent troubled times, should appeal to conservative investors.

Sigourney b. Romaine *December 12, 2008*

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	80

(A) Diluted earnings per share. Excludes nonrecurring items: '98, $0.15; '00, $0.11; '03, ($0.08). Next earnings report due early February.

(B) Dividends historically paid in mid-February, mid-May, mid-August, and mid-November.
■ Dividend reinvestment plan available.
(C) In millions, adjusted for stock split.

PIEDMONT NAT'L. GAS NYSE-PNY

RECENT PRICE 31.23 | P/E RATIO 19.8 (Trailing: 19.9 Median: 17.0) | RELATIVE P/E RATIO 1.94 | DIV'D YLD 3.3% | VALUE LINE

TIMELINESS 3 Raised 8/15/08
SAFETY 2 New 12/29/89
TECHNICAL 1 Raised 12/5/08
BETA .70 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	(+30%)	10%
Low	30	(-5%)	3%

Insider Decisions

	J	F	M	A	M	J	J	A	S	O	N	D
to Buy	0	0	0	0	0	0	0	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0	0	0	0
to Sell	0	0	2	0	0	0	0	0	0	0	0	0

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	70	87	82
to Sell	85	77	96
Hld(000)	36778	38668	35226

Percent shares traded: 7.5 / 5 / 2.5

High: 18.2 18.1 18.3 19.7 19.0 19.0 22.0 24.3 25.8 23.4 28.0 35.3
Low: 11.0 13.8 14.8 11.8 14.6 18.7 16.6 19.2 21.3 23.2 22.0 21.7

LEGENDS
1.40 x Dividends p sh divided by Interest Rate
Relative Price Strength
2-for-1 split 11/04
Options: Yes
Shaded areas are recession
Latest recession began 12/07

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	33.9	-41.9
3 yr.	68.2	-30.0
5 yr.	98.6	-10.6

Target Price Range 2011 | 2012 | 2013

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
8.91	10.57	10.82	8.78	11.59	12.84	12.45	10.97	13.01	17.03	12.57	18.14	19.85	22.56	25.80	23.37	28.30	29.10	Revenues per sh [A]	32.05
1.07	1.14	1.13	1.25	1.48	1.62	1.72	1.70	1.77	1.81	1.81	2.04	2.31	2.43	2.51	2.84	2.80	2.85	"Cash Flow" per sh	3.30
.70	.73	.68	.73	.84	.93	.93	.93	1.01	1.01	.35	1.11	1.27	1.32	1.27	1.40	1.55	1.60	Earnings per sh [B]	2.05
.46	.48	.51	.54	.57	.61	.64	.68	.72	.76	.80	.82	.85	.91	.95	.99	1.03	1.07	Div'ds Decl'd per sh [C▪]	1.19
1.41	1.58	1.95	1.72	1.64	1.52	1.48	1.58	1.65	1.29	1.21	1.16	1.35	2.60	2.74	1.85	1.95	3.40	Cap'l Spending per sh	2.25
6.13	6.45	6.68	6.48	6.83	6.85	7.45	7.88	8.28	8.80	8.91	8.99	11.15	11.53	11.83	11.99	12.60	13.15	Book Value per sh [D]	15.45
51.59	52.30	53.16	57.57	59.10	60.39	61.49	62.59	63.83	64.93	66.18	67.31	76.67	76.70	74.51	73.23	73.50	73.60	Common Shs Outst'g [E]	73.00
12.3	16.4	16.7	13.8	13.9	13.5	16.3	17.7	14.3	16.7	16.4	16.7	16.6	17.9	19.2	18.7	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	16.0
.75	.91	1.03	.92	.97	.78	.85	1.01	.93	.85	1.01	.95	.88	.95	1.04	.98			Relative P/E Ratio	1.50
5.3%	4.3%	4.6%	5.4%	4.9%	4.8%	4.0%	4.1%	5.0%	4.5%	4.0%	4.4%	4.1%	3.8%	3.5%	3.6%			Avg Ann'l Div'd Yield	3.1%
755.3	686.5	830.4	1107.9	832.0	1220.5	1529.7	1761.1	1924.7	1711.3	2060	2140	Revenues ($mill) [A]	2340
60.3	58.2	64.0	65.5	62.2	74.4	85.2	101.3	97.2	104.4	114	118	Net Profit ($mill)	150
39.2%	39.7%	34.7%	34.6%	33.1%	34.8%	35.1%	33.7%	34.2%	33.0%	35.0%	35.0%	Income Tax Rate	35.0%
7.6%	8.5%	7.7%	5.9%	7.5%	6.1%	6.2%	6.0%	5.0%	6.1%	6.6%	5.5%	Net Profit Margin	6.4%
44.7%	46.2%	48.1%	47.6%	43.5%	42.2%	43.6%	41.4%	48.3%	48.4%	47.5%	50.0%	Long-Term Debt Ratio	47.0%
55.3%	53.8%	53.5%	52.4%	56.1%	57.8%	56.4%	58.6%	51.7%	51.6%	52.5%	50.0%	Common Equity Ratio	53.0%
629.3	614.7	578.4	1069.4	1031.6	1050.2	1514.9	1509.2	1707.9	1703.3	1765	1930	Total Capital ($mill)	2125
690.6	1047.0	1072.0	1114.7	1158.5	1812.3	1849.8	1939.1	2075.3	2141.5	2200	2250	Net Plant ($mill)	2400
9.2%	8.1%	8.3%	7.9%	7.6%	6.6%	7.5%	8.2%	7.2%	7.8%	8.0%	7.5%	Return on Total Cap'l	8.5%
13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	11.0%	11.9%	12.5%	12.5%	Return on Shr. Equity	13.5%
13.2%	11.8%	12.1%	11.7%	10.6%	11.8%	11.1%	11.5%	11.0%	11.9%	12.5%	12.5%	Return on Com Equity	13.5%
4.7%	3.3%	3.5%	3.9%	1.7%	3.1%	3.7%	3.5%	2.8%	3.5%	4.0%	4.0%	Retained to Com Eq	5.5%
65%	72%	71%	76%	83%	74%	66%	68%	74%	70%	66%	67%	All Div'ds to Net Prof	58%

CAPITAL STRUCTURE as of 7/31/08
Total Debt $934.0 mill. Due in 5 Yrs $150.0 mill.
LT Debt $824.6 mill. LT Interest $55.7 mill.
(LT Interest earned: 4.0x; total interest coverage: 4.0x)

Pension Assets-10/07 $225.0 mill. Oblig. $188.7 mill.

Pfd Stock None

Common Stock 73,278,668 shs.
as of 9/22/08
MARKET CAP: $2.3 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	7/31/08
Cash Assets	8.9	7.5	4.9
Other	467.1	427.8	429.9
Current Assets	476.0	435.3	434.8
Accts Payable	80.3	97.2	151.8
Debt Due	170.0	195.0	169.5
Other	150.1	132.3	114.2
Current Liab.	400.4	424.5	439.5
Fix. Chg. Cov.	261%	225%	220%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.0%	11.0%	5.0%
"Cash Flow"	6.5%	7.0%	4.5%
Earnings	6.0%	6.0%	7.5%
Dividends	5.0%	4.5%	4.0%
Book Value	6.0%	6.5%	4.5%

Fiscal Year Ends	QUARTERLY REVENUES ($ mill.) [A] Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2005	660.6	508.0	232.9	339.6	1761.1
2006	921.4	483.2	237.9	282.2	1924.7
2007	877.2	531.5	224.4	278.2	1711.3
2008	788.5	634.2	354.7	302.6	2080
2009	815	655	360	310	2140

Fiscal Year Ends	EARNINGS PER SHARE [A B F] Jan.31	Apr.30	Jul.31	Oct.31	Full Fiscal Year
2005	.93	.52	d.05	d.07	1.32
2006	.94	.57	d.15	d.09	1.27
2007	.94	.59	d.12	d.11	1.40
2008	1.12	.66	d.10	d.13	1.55
2009	1.13	.68	d.10	d.11	1.60

Calendar	QUARTERLY DIVIDENDS PAID [C▪] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.209	.215	.215	.215	.85
2005	.216	.23	.23	.23	.91
2006	.23	.24	.24	.24	.95
2007	.24	.25	.25	.25	.99
2008	.25	.26	.26	.26	

BUSINESS: Piedmont Natural Gas Company is primarily a regulated natural gas distributor, serving over 932,897 customers in North Carolina, South Carolina, and Tennessee. 2007 revenue mix: residential (54%), commercial (30%), industrial (14%), other (2%). Principal suppliers: Transco and Tennessee Pipeline. Gas costs: 69.4% of revenues. '07 depreciation rate: 3.4%. Estimated plant age: 8.7 years. Non-regulated operations: sale of gas-powered heating equipment; natural gas marketing; propane sales. Has about 1,876 employees. Officers & directors own less than 1% of common stock (1/08 proxy). Chairman, CEO, & President: Thomas E. Skains, Inc.: NC. Addr.: 4720 Piedmont Row Drive, Charlotte, NC 28210. Telephone: 704-364-3120. Internet: www.piedmontng.com.

Piedmont Natural Gas likely posted a larger share loss for the October interim. Its top-line volumes have been growing steadily due to its residential and commercial businesses. Moreover, marketing activities are beginning to bear fruit for its wholesale division. But weaker performance at the sideline Hardy Storage and Southstar Energy Service units ought to detract from other income, resulting in the aforementioned decline in share net. However, due to stronger profitability earlier this year, PNY's 2008 tally likely advanced almost 11%.

Due to the tough operating environment, the top and bottom lines may well advance only 3% in fiscal 2009 (began November 1st). Winter heating costs are expected to remain flat this year. However, some uncertainty stems from the 2008-2009 winter weather. Meanwhile, operating margins should continue to benefit from higher volumes and decreased operating expenses. Thus, profitability ought to improve marginally. Furthermore,

New rate cases and capital projects augur well for the company's prospects. Piedmont recently received approval for a rate increase in North Carolina. This allowed the company to raise its annual rates by $15.7 million, effective November 1st. Meanwhile, the Robeson liquid natural gas storage project, located in NC, is moving along nicely. This facility should allow for extra capacity and profits during peak winter months.

Hardy Storage and Southstar Energy Services contributions to PNY have moderated a bit. This stems from higher operating expenses at Hardy Storage and from the effects of warmer weather on Southstar Energy. Meanwhile, Southstar has been impacted by rising commodity prices and reduced opportunities from the management of storage and transportation assets. Still, the Hardy Storage facility only came on line in April, 2007. There is room to expand, and operations can be tightened up, providing upside. In all, these neutrally ranked shares may offer modest conservative appeal. They have been more volatile than usual since our September review. However, presently, they are trading almost 13% higher and offer good dividend growth potential.

Bryan Fong December 12, 2008

(A) Fiscal year ends October 31st.
(B) Diluted earnings. Excl. extraordinary items: '00, $4. Excl. nonrecurring charge: '07, 24¢. Next earnings report due early Feb.
(C) Dividends historically paid mid-January, April, July, October.
▪ Div'd reinvest. plan available; 5% discount.
(D) Includes deferred charges. In 2007: $23.9 million, 33¢/share.
(E) In millions, adjusted for stock split.
(F) Quarters may not add to total due to change in shares outstanding.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	85

SOUTH JERSEY INDS. NYSE-SJI

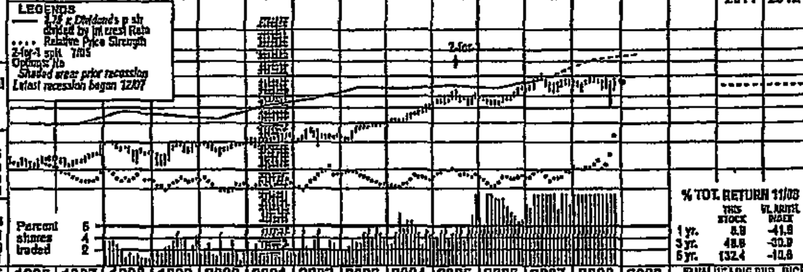
RECENT PRICE	37.07	P/E RATIO	15.6 (Trailing: 16.6; Median: 14.0)	RELATIVE P/E RATIO	1.53	DIV'D YLD	3.2%	VALUE LINE

TIMELINESS 3 Raised 9/26/08
SAFETY 2 Lowered 1/7/91
TECHNICAL 2 Raised 12/5/08
BETA .35 (1.00 = Market)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
High:	15.3	15.4	16.4	16.1	17.0	16.3	20.3	26.5	32.4	34.9	41.3	39.4
Low:	10.5	11.0	10.8	12.3	13.8	14.1	16.3	19.7	24.9	25.6	31.2	25.2

Target Price Range 2011 | 2012 | 2013

LEGENDS
— 1.75 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 split 7/05
Options: No
Shaded area: prior recession
Latest recession began 12/07



2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	50	(+35%)	10%
Low	35	(-5%)	2%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	1	0	0	0	0	0
Options	0	0	0	0	0	0	0	0	0
to Sell	0	0	2	0	2	1	0	0	0

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	67	85	71
to Sell	71	58	59
Hld's(000)	17182	17430	17041

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	8.9	-41.9
3 yr.	48.8	-30.9
5 yr.	132.4	-10.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC	11-13
16.67	17.03	17.45	18.50	18.52	16.18	20.89	17.60	22.43	35.30	20.69	26.34	29.51	31.78	31.76	32.30	32.00	32.25	Revenues per sh	35.95
1.56	1.54	1.35	1.65	1.64	1.60	1.44	1.84	1.85	1.80	2.12	2.24	2.44	2.51	3.51	3.20	3.30	3.60	"Cash Flow" per sh	4.20
.91	.78	.61	.83	.85	.86	.64	1.01	1.09	1.15	1.22	1.37	1.59	1.71	2.46	2.09	2.30	2.50	Earnings per sh A	3.00
.71	.72	.72	.72	.72	.72	.72	.72	.73	.74	.75	.78	.82	.86	.92	1.01	1.11	1.20	Div'ds Decl'd per sh B■	1.30
1.69	1.87	1.93	2.08	2.01	2.30	3.06	2.19	2.21	2.82	3.47	2.39	2.87	3.21	2.51	1.88	2.00	2.25	Cap'l Spending per sh	3.75
6.95	7.17	7.23	7.34	8.03	6.43	6.23	6.74	7.25	7.81	9.67	11.28	12.41	13.60	15.11	16.25	17.35	17.75	Book Value per sh C	19.55
18.00	19.61	21.43	21.44	21.51	21.64	21.66	22.30	23.00	23.72	24.41	25.48	27.76	28.98	29.33	29.61	30.00	31.00	Common Shs Outst'g D	32.00
13.2	15.8	16.1	12.2	13.3	13.8	21.2	13.3	13.0	13.6	13.5	13.9	14.1	16.6	11.9	17.2	*Bold figures are*	*Value Line estimates*	Avg Ann'l P/E Ratio	14.0
.80	.93	1.05	.82	.83	.80	1.10	.76	.85	.70	.74	.76	.74	.89	.64	.91			Relative P/E Ratio	.95
5.5%	5.9%	7.4%	7.2%	6.4%	6.1%	6.3%	5.4%	5.2%	4.7%	4.5%	4.3%	3.7%	3.0%	3.2%	2.8%			Avg Ann'l Div'd Yield	3.1%
						450.2	392.5	515.9	837.3	505.1	598.8	819.1	921.0	931.4	955.4	960	1000	Revenues ($mill)	1150
						13.8	22.0	24.7	26.8	29.4	34.6	43.0	48.6	72.0	61.8	70.0	80.0	Net Profit ($mill)	100
						46.2%	42.8%	43.1%	42.2%	41.4%	40.6%	40.9%	41.5%	41.3%	41.8%	42.0%	40.0%	Income Tax Rate	40.0%
						3.1%	5.6%	4.8%	3.2%	5.8%	5.0%	5.2%	5.3%	7.7%	6.5%	7.3%	8.0%	Net Profit Margin	8.7%
						57.3%	53.5%	54.1%	57.0%	53.6%	50.8%	48.7%	44.9%	44.7%	42.7%	41.0%	40.5%	Long-Term Debt Ratio	40.5%
						33.5%	37.0%	37.6%	33.9%	46.1%	49.0%	51.0%	55.1%	55.3%	57.3%	59.0%	59.5%	Common Equity Ratio	59.5%
						401.1	405.9	443.5	516.2	512.5	589.4	675.0	710.3	801.1	839.0	880	925	Total Capital ($mill)	1050
						504.3	533.3	552.2	607.0	656.6	746.3	799.9	877.3	920.0	948.9	980	1015	Net Plant ($mill)	1200
						5.3%	7.4%	7.4%	6.9%	7.6%	7.9%	7.9%	8.3%	10.1%	8.5%	9.0%	9.5%	Return on Total Cap'l	10.5%
						8.1%	11.7%	12.1%	12.1%	12.4%	11.6%	12.4%	12.4%	18.3%	12.8%	13.5%	14.5%	Return on Shr. Equity	16.0%
						10.3%	14.6%	14.8%	12.8%	12.5%	11.6%	12.5%	12.4%	18.3%	12.8%	13.6%	14.5%	Return on Com Equity	16.0%
						NMF	4.2%	4.8%	3.5%	4.7%	5.0%	5.9%	6.2%	10.2%	6.7%	7.0%	8.0%	Retained to Com Eq	9.5%
						112%	72%	67%	76%	62%	57%	52%	50%	37%	46%	48%	47%	All Div'ds to Net Prof	42%

CAPITAL STRUCTURE as of 9/30/08
Total Debt $517.0 mill. Due in 5 Yrs $195.9 mill.
LT Debt $357.8 mill. LT Interest $17.0 mill.
(Total interest coverage: 5.9x)

Pension Assets-12/07 $120.4 mill. Oblig. $133.0 mill.

Pfd Stock none

Common Stock 29,728,697 common shs. as of 11/3/08

MARKET CAP: $1.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2005	2007	9/30/08
Cash Assets	7.9	11.7	4.2
Other	363.8	316.6	350.7
Current Assets	371.7	328.3	354.9
Accts Payable	101.6	101.2	88.1
Debt Due	197.0	118.4	159.2
Other	124.2	108.7	131.1
Current Liab.	422.8	328.3	378.4
Fix. Chg. Cov.	527%	476%	581%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	7.0%	4.0%	2.0%
"Cash Flow"	7.0%	9.0%	6.5%
Earnings	9.5%	12.5%	6.0%
Dividends	2.5%	4.5%	6.5%
Book Value	7.5%	12.5%	4.5%

Cal-endar	QUARTERLY REVENUES ($ mill.) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	326.6	154.0	157.0	281.4	921.0
2006	372.6	153.8	154.7	250.3	931.4
2007	369.4	171.7	158.2	250.1	955.4
2008	348.0	135.8	210.4	265.8	960
2009	365	160	200	275	1000

Cal-endar	EARNINGS PER SHARE A Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.98	.27	.09	.39	1.71
2006	1.06	.20	.51	.69	2.46
2007	1.30	.21	d.05	.63	2.09
2008	1.52	.26	.04	.68	2.30
2009	1.35	.30	.15	.70	2.50

Cal-endar	QUARTERLY DIVIDENDS PAID B■ Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	--	.202	.202	.416	.82
2005	--	.213	.213	.439	.86
2006	--	.225	.225	.470	.92
2007	--	.245	.245	.515	1.01
2008	--	.270	.270	.568	

BUSINESS: South Jersey Industries, Inc. is a holding company. Its subsidiary, South Jersey Gas Co., distributes natural gas to 335,563 customers in New Jersey's southern counties, which covers 2,500 square miles and includes Atlantic City. Gas revenue mix '07: residential, 46%; commercial, 23%; cogeneration and electric generation, 8%; industrial, 23%. Non-utility operations include: South Jersey Energy, South Jersey Resources Group, Marina Energy, and South Jersey Energy Service Plus. Has 604 employees. Off./dir. control 1.0% of com. shares; Dimensional Fund Advisors, 5.5%; Barclays, 6.1% (3/08 proxy). Chrmn. & CEO: Edward Graham. Incorp.: NJ. Address: 1 South Jersey Plaza, Folsom, NJ 08037. Tel.: 609-561-9000. Internet: www.sjindustries.com.

Shares of South Jersey Industries have held their own in recent months, despite considerable weakness in the broader market. The company reported strong results for the third quarter. Customer growth at South Jersey Gas continued at a decent clip, considering the slowdown in the housing construction market. The utility posted a slightly greater loss in the recent period, though. Losses are common for this business in the third quarter, due to a lack of heating demand. This was more than offset by strength in other areas. Higher cooling demand and the opening of the Borgata's new Water Club tower benefited performance at the on-site energy production business, *Marina Energy*. The Retail Services and Asset Management & Marketing segments also posted improved results. We anticipate a healthy performance in the fourth quarter, as well.

We expect a share-earnings advance of roughly 10% for full-year 2008. Bottom-line growth ought to continue in 2009.

The New Jersey Board of Public Utilities has approved a rate increase for South Jersey Gas. The subsidiary had originally requested an increase in June, citing greater natural gas costs. Its Basic Gas Supply Service rate will now increase by 9.2%, which was somewhat smaller than had been originally requested, reflecting a decline in gas prices in recent months.

The company has announced a 10% dividend hike. The board of directors raised the quarterly dividend from $0.27 to $0.2975, starting with the December payout. The company has established an encouraging track record of dividend increases in recent years. We expect this pattern to continue. In addition, South Jersey has announced a share-repurchase program. Under this program, the company can buy back up to 5% of common stock outstanding over the next four years. This ought to keep a lid on the share count, supporting share net.

This issue is neutrally ranked for year-ahead performance. Looking further out, we anticipate solid bottom-line growth at the company over the pull to 2011-2013. This good-quality stock offers subpar, but reasonably well-defined, total return potential for the coming years.

Michael Napoli, CPA *December 12, 2008*

(A) Based on GAAP EPS through 2006, economic earnings thereafter. GAAP EPS: '07, $2.10. Excl. nonrecur. gain (loss): '01, $0.13; Q2 '08, ($0.70). Excl gain (losses) from discont. ops.: '96, $1.14; '97, ($0.24); '98, ($0.26); '99, ($0.02); '00, ($0.04); '01, ($0.02); '02, ($0.04); '03, ($0.09); '05, ($0.02); '06, ($0.02); '07, $0.01. Next egs. report due late February.
(B) Div'ds paid early Apr., Jul., Oct., and late Dec. ■ Div. reinvest. plan avail. (C) Incl. regulatory assets. At 9/30/08: $212.7 mill., $7.15 per shr. (D) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	100
Price Growth Persistence	95
Earnings Predictability	75

SOUTHWEST GAS NYSE-SWX

RECENT PRICE 24.79 | P/E RATIO 13.6 (Trailing: 14.1 Median: 16.5) | RELATIVE P/E RATIO 1.33 | DIV'D YLD 3.8% | VALUE LINE

TIMELINESS 3 Raised 9/28/08
SAFETY 3 Lowered 11/9/01
TECHNICAL 2 Raised 12/12/08
BETA .75 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+80%)	16%
Low	30	(+20%)	8%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	0	0	0	0	0	2
Options	0	0	1	0	1	0	0	0	0
to Sell	0	0	2	0	3	0	0	0	2

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	80	85	58
to Sell	68	65	74
Hld's(000)	34495	34150	33869

High 20.3 28.8 29.5 23.0 24.7 26.3 23.6 26.2 26.1 35.4 38.9 33.3
Low 16.1 17.3 20.4 16.9 18.5 18.1 19.3 21.5 23.5 25.0 26.5 21.1

LEGENDS
2.00 x Dividends p sh divided by Interest Rate
Relative Price Strength
Options: Yes
Shaded area: prior recession
Latest recession: March 2001

Target Price Range 2011 2012 2013

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-7.6	-41.8
3 yr.	6.5	-30.9
5 yr.	39.3	-10.5

© VALUE LINE PUB., INC. 11-13

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
25.93	25.68	26.16	23.03	24.09	26.73	30.17	30.24	32.61	42.98	39.58	35.58	40.14	43.59	48.47	50.27	48.85	50.00	Revenues per sh [A]
3.34	3.24	5.09	2.65	3.00	3.85	4.48	4.45	4.57	4.78	5.07	6.11	6.57	5.20	5.97	6.21	6.00	6.45	"Cash Flow" per sh
.81	.63	1.22	.10	.25	.77	1.65	1.27	1.21	1.15	1.16	1.13	1.58	1.25	1.98	1.85	1.75	2.00	Earnings per sh [A B]
.70	.74	.80	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82	.88	.90	.94	Div'ds Decl'd per sh [C]
5.02	5.43	6.84	6.79	6.19	6.19	6.40	7.41	7.04	6.17	8.60	7.05	8.23	7.49	8.27	7.98	6.80	7.50	Cap'l Spending per sh
15.99	15.96	16.38	14.65	14.20	14.09	15.67	16.31	16.82	17.27	17.91	18.42	19.18	19.10	21.58	22.88	23.30	24.45	Book Value per sh
28.60	21.69	21.28	24.47	26.73	27.39	30.41	30.89	31.71	32.49	33.29	34.23	36.79	39.33	41.77	42.81	44.00	45.00	Common Shs Outst'g [D]
16.5	26.5	14.0	NMF	69.3	24.1	13.2	21.1	16.0	19.0	19.9	19.2	14.3	20.6	15.9	18.4	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio
1.01	1.57	.82	NMF	4.34	1.30	.68	1.20	1.04	.97	1.09	1.09	.76	1.10	.88	.98			Relative P/E Ratio
5.2%	4.4%	4.7%	5.4%	4.7%	4.4%	3.8%	3.1%	4.2%	3.6%	3.6%	3.8%	3.5%	3.2%	2.5%	2.4%			Avg Ann'l Div'd Yield
917.3	935.6	1034.1	1398.7	1320.9	1231.0	1477.1	1714.3	2024.7	2152.1	2150	2250	Revenues ($mill) [A]						
47.5	39.3	38.3	37.2	33.6	36.5	50.9	48.1	80.5	83.3	75.0	80.0	Net Profit ($mill)						
43.4%	35.5%	26.2%	34.5%	32.8%	30.5%	34.8%	29.7%	37.3%	35.5%	39.0%	38.0%	Income Tax Rate						
5.2%	4.2%	3.7%	2.7%	2.6%	3.1%	4.0%	2.8%	4.0%	3.9%	3.5%	4.0%	Net Profit Margin						
60.2%	60.3%	60.2%	56.2%	52.6%	68.0%	64.2%	53.6%	69.6%	68.1%	66.0%	64.0%	Long-Term Debt Ratio						
35.3%	35.6%	35.8%	39.6%	34.1%	34.0%	35.8%	36.2%	30.4%	31.9%	34.0%	36.0%	Common Equity Ratio						
1349.3	1424.7	1489.9	1417.6	1748.3	1851.6	1958.8	2076.0	2287.8	2340.8	2325	2380	Total Capital ($mill)						
1459.4	1531.1	1598.1	1826.6	1979.5	2176.7	2338.0	2469.1	2668.1	2845.3	2960	3100	Net Plant ($mill)						
5.8%	4.8%	4.6%	5.1%	4.3%	4.2%	5.0%	4.3%	5.5%	5.5%	5.0%	5.5%	Return on Total Cap'l						
8.0%	7.0%	6.5%	6.0%	5.9%	6.1%	8.3%	6.4%	6.9%	8.5%	7.5%	8.0%	Return on Shr. Equity						
10.0%	7.8%	7.2%	8.6%	8.6%	8.1%	8.3%	8.4%	6.9%	8.5%	7.5%	8.0%	Return on Com Equity						
5.0%	2.8%	2.4%	1.9%	1.9%	1.7%	4.3%	2.2%	5.2%	4.8%	3.5%	4.5%	Retained to Com Eq						
50%	64%	67%	71%	70%	72%	49%	65%	42%	44%	52%	47%	All Div'ds to Net Prof						

CAPITAL STRUCTURE as of 9/30/08

Total Debt $1325.6 mill. Due in 5 Yrs $615.0 mill.
LT Debt $1313.1 mill. LT Interest $80.0 mill.
(Total interest coverage: 2.3x)
Leases, Uncapitalized Annual rentals $7.0 mill.
Pension Assets-12/07 $441.7 mill.
Obllg. $546.4 mill.

Pfd Stock None

Common Stock 43,814,407 shs.
as of 10/31/08

MARKET CAP: $1.1 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	9/30/08
Cash Assets	18.8	32.0	13.2
Other	482.8	470.6	257.2
Current Assets	501.6	502.6	270.4
Accts Payable	265.7	220.7	79.7
Debt Due	27.5	47.1	12.5
Other	202.9	260.1	268.9
Current Liab.	496.1	527.8	356.0
Fix. Chg. Cov.	220%	229%	230%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	5.0%	4.5%	3.5%
"Cash Flow"	4.5%	4.0%	3.0%
Earnings	12.0%	6.0%	6.5%
Dividends	--	--	4.0%
Book Value	3.0%	3.5%	4.0%

Calendar	QUARTERLY REVENUES ($ mill) Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	542.9	361.1	313.3	497.0	1714.3
2006	576.9	430.9	351.8	665.1	2024.7
2007	793.7	425.6	371.6	660.2	2152.1
2008	813.6	447.3	374.4	514.7	2150
2009	800	475	415	560	2250

Calendar	EARNINGS PER SHARE [B] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.58	d.07	d.43	.97	1.25
2006	1.11	.02	d.26	1.11	1.95
2007	1.17	d.01	d.22	1.00	1.95
2008	1.14	d.05	d.38	1.05	1.75
2009	1.15	Nil	d.25	1.10	2.00

Calendar	QUARTERLY DIVIDENDS PAID [C] Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.205	.205	.205	.205	.82
2005	.205	.205	.205	.205	.82
2006	.205	.205	.205	.205	.82
2007	.205	.215	.215	.215	.85
2008	.215	.225	.225	.225	

BUSINESS: Southwest Gas Corporation is a regulated gas distributor serving approximately 1.8 million customers in sections of Arizona, Nevada, and California. Comprised of two business segments: natural gas operations and construction services. 2007 margin mix: residential and small commercial, 56%; large commercial and industrial, 5%; transportation, 8%. Total throughput: 2.4 billion therms. Sold PriMerit Bank, 7/98. Has 5,073 employees. Off. & Dir. own 1.8% of common stock; T. Rowe Price Associates, Inc., 6.7%; GAMCO Investors, Inc., 5.8% (3/08 Proxy). Chairman: James J. Kropid. Chief Executive Officer: Jeffrey W. Shaw. Inc: California. Address: 5241 Spring Mountain Road, Las Vegas, Nevada 89193. Telephone: 702-876-7237. Internet: www.swgas.com.

Southwest Gas reported an unimpressive performance for the third quarter. The top line advanced slightly in the recent interim. Operating costs increased at a faster pace, though. Moreover, the company reported a negative return on long-term investments. Overall, Southwest posted a much greater share loss for the period. Customer growth has moderated in recent periods. A slowdown in the new construction market and an increasing inventory of vacant homes in the Southwest hurt performance. Third-quarter losses are common, considering the seasonal nature of the business. Still, the company is operating in a challenging environment, which ought to continue to stymie growth in the near term. We anticipate flat revenues and lower earnings per share at Southwest Gas for full-year 2008. Share earnings may rebound in 2009, assuming success at controlling costs.

The company has two important rate case proceedings nearing conclusion. It is seeking a rate increase of $50.2 million in Arizona, and has included proposed rate design changes to address weather-related volatility. Elsewhere, Southwest is seeking a $9.1 million increase in operating revenues in California. These requests appear reasonable, although it is unclear what pressures the rate boards may face, if any. We expect decisions on these cases by yearend. The company's focus on procuring rate relief and improving rate design is important, as SWX depends upon such approved revenue increases to help it cope with higher expenses and to provide for smoother earnings.

Investors should be aware of several caveats. Warmer-than-normal temperatures during the winter months can hurt profitability at Southwest Gas. Moreover, the company will likely incur higher operating costs as it continues to expand. Furthermore, insufficient, or lagging, rate relief could also hurt profits.

Shares of Southwest Gas, once favored for their growth, are out of sorts now. Nevertheless, we anticipate higher share earnings at the company by early next decade. At the current quotation, this issue features good total return potential for a utility, considering its healthy dividend yield.

Michael Napoli, CPA *December 12, 2008*

(A) Incl. income for PriMerit Bank on the equity basis through 1994. (B) Based on avg. shares outstand. thru '98, then diluted. Excl. nonrec. gains (losses): '93, 6¢; '97, 16¢; '02, (10¢); '05, (11¢); '06, 7¢. Incl. asset writedowns '93, 44¢. Excl. loss from disc. ops.: '95, 75¢. Totals may not sum due to rounding. Next egs. report due late February. (C) Dividends historically paid early March, June, September, December. ■ Div'd reinvest. plan avail. (D) In millions.

Company's Financial Strength	B
Stock's Price Stability	100
Price Growth Persistence	55
Earnings Predictability	65

WGL HOLDINGS NYSE-WGL

RECENT PRICE 33.52 | P/E RATIO 14.1 (Trailing: 13.9 Median: 15.0) | RELATIVE P/E RATIO 1.38 | DIV'D YLD 4.3% | VALUE LINE

TIMELINESS 3 Raised 9/25/07
SAFETY 1 Raised 6/2/01
TECHNICAL 2 Raised 12/12/08
BETA .75 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	40	20%	8%
Low	35	5%	5%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	0	1	0	0	0	0
Options	0	0	0	0	0	1	0	0	2
to Sell	2	0	0	0	7	1	0	0	2

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	106	85	83
to Sell	89	100	119
Hld's(000)	35659	34195	32939

High: 31.4 30.8 29.4 31.5 30.5 29.5 28.8 31.4 34.8 33.6 35.9 37.1
Low: 20.9 23.1 21.0 21.8 25.3 19.3 23.2 26.7 28.8 27.0 29.8 22.4

LEGENDS
— 1.30 x Dividends p sh divided by Interest Rate
.... Relative Price Strength
2-for-1 spl: 6/99
Options: Yes
Shaded area: prior recession
Latest recession began 12/07

Target Price Range 2011 2012 2013

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	14.2	-41.9
3 yr.	35.2	-30.9
5 yr.	53.0	-10.8

1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC	11-13
19.37	21.55	21.69	19.30	22.18	24.15	23.74	20.92	22.19	29.80	32.63	42.45	42.83	44.94	53.89	53.51	52.98	53.25	Revenues per sh [A]	54.60
2.17	2.25	2.43	2.51	2.83	3.02	2.79	2.74	3.20	3.24	2.63	4.03	3.57	3.97	3.93	3.89	4.17	4.30	"Cash Flow" per sh	4.55
1.27	1.31	1.42	1.45	1.65	1.85	1.64	1.47	1.78	1.88	1.14	2.30	1.88	2.11	1.94	2.10	2.33	2.40	Earnings per sh [B]	2.65
1.07	1.09	1.11	1.12	1.14	1.17	1.20	1.22	1.24	1.26	1.27	1.28	1.30	1.32	1.34	1.37	1.42	1.44	Div'ds Decl'd per sh [C]	1.69
2.17	2.43	2.84	2.63	2.85	3.20	3.62	3.42	2.87	2.68	3.34	2.85	2.33	2.52	3.27	3.33	3.33	3.00	Cap'l Spending per sh	2.50
10.68	11.04	11.61	11.85	12.79	13.46	13.66	14.72	15.31	16.24	15.78	16.25	16.65	17.80	18.28	19.83	21.06	22.60	Book Value per sh [D]	25.60
40.62	41.50	42.19	42.93	43.70	43.70	43.84	46.47	46.47	48.54	48.58	48.63	48.67	48.65	48.89	49.45	49.61	49.65	Common Shs Outst'g [E]	50.00
13.6	15.6	14.0	12.7	11.5	12.7	17.2	17.3	14.6	14.7	23.1	11.1	14.2	14.7	15.5	15.6	14.3		Avg Ann'l P/E Ratio	15.0
.82	.92	.92	.85	.72	.73	.89	.89	.85	.75	1.26	.63	.75	.78	.84	.82	.85		Relative P/E Ratio	1.00
6.2%	6.3%	5.8%	6.1%	5.4%	5.0%	4.6%	4.8%	4.8%	4.6%	4.8%	5.0%	4.5%	4.2%	4.6%	4.2%	4.3%		Avg Ann'l Div'd Yield	4.2%
1040.6	972.1	1031.1	1446.5	1584.8	2064.2	2089.6	2185.3	2637.9	2546.0	2628.2	2650	Revenues ($mill) [A]	2730
63.6	68.8	84.6	89.9	85.7	112.3	88.0	104.8	85.1	102.9	116.3	120	Net Profit ($mill)	130
35.6%	36.0%	36.1%	39.6%	34.0%	38.0%	36.2%	37.4%	39.0%	39.1%	38.0%	38.0%	Income Tax Rate	38.0%
6.5%	7.1%	8.2%	6.2%	5.5%	5.4%	4.7%	4.8%	3.6%	3.9%	4.4%	4.5%	Net Profit Margin	4.8%
48.3%	41.5%	43.1%	41.7%	45.7%	43.8%	40.9%	39.5%	38.5%	37.9%	35.0%	35.0%	Long-Term Debt Ratio	32.0%
51.1%	58.1%	54.8%	58.3%	52.4%	54.3%	57.2%	58.6%	61.5%	60.3%	62.3%	63.5%	Common Equity Ratio	66.5%
1064.8	1218.5	1289.2	1400.8	1462.5	1454.9	1443.6	1478.1	1497.8	1625.4	1677.2	1720	Total Capital ($mill)	1880
1319.5	1402.7	1460.3	1519.7	1606.8	1674.9	1815.6	1969.7	2097.9	2150.4	2208.3	2325	Net Plant ($mill)	2615
8.0%	7.1%	7.9%	7.9%	6.3%	9.1%	8.2%	8.5%	7.7%	7.5%	8.1%	8.0%	Return on Total Cap'l	8.5%
10.8%	9.7%	11.4%	11.0%	7.0%	13.7%	11.5%	11.7%	10.3%	10.2%	11.1%	11.0%	Return on Shr. Equity	10.0%
11.1%	9.9%	11.7%	11.2%	7.2%	14.0%	11.7%	12.0%	10.2%	10.4%	11.6%	11.5%	Return on Com Equity	10.5%
2.5%	1.8%	3.7%	3.8%	NMF	6.2%	4.1%	4.6%	3.1%	3.5%	4.3%	4.5%	Retained to Com Eq	4.0%
76%	82%	69%	67%	112%	55%	65%	62%	70%	66%	61%	60%	All Div'ds to Net Prof	61%

CAPITAL STRUCTURE as of 9/30/08
Total Debt $950.7 mill. Due in 5 Yrs $399.5 mill.
LT Debt $603.7 mill. LT Interest $40.1 mill.
(LT interest earned: 5.7x; total interest coverage: 5.7x)
Pension Assets-9/08 $538.2 mill.
Oblig. $680.6 mill.
Preferred Stock $20.2 mill. Pfd. Div'd $1.3 mill.
Common Stock 49,971,514 shs. as of 10/31/08
MARKET CAP: $1.7 billion (Mid Cap)

CURRENT POSITION ($MILL.)

	2006	2007	9/30/08
Cash Assets	4.4	4.9	6.2
Other	556.9	668.8	736.1
Current Assets	561.3	673.7	742.3
Accts Payable	208.5	216.9	243.1
Debt Due	238.4	205.4	347.0
Other	113.9	134.8	156.4
Current Liab.	560.8	667.1	746.5
Fix. Chg. Cov.	485%	480%	460%

ANNUAL RATES of change (per sh)

	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	8.0%	12.5%	1.0%
"Cash Flow"	3.5%	6.0%	2.5%
Earnings	2.0%	5.0%	3.5%
Dividends	1.5%	1.5%	2.5%
Book Value	4.0%	3.5%	5.0%

QUARTERLY REVENUES ($ mill) [A]

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	523.4	829.0	349.0	284.1	2186.3
2006	802.9	1084.5	346.9	323.6	2637.9
2007	732.9	1118.9	467.6	325.7	2646.0
2008	751.6	1020.0	464.7	391.9	2628.2
2009	760	1050	480	360	2650

EARNINGS PER SHARE [A B]

Fiscal Year Ends	Dec.31	Mar.31	Jun.30	Sep.30	Full Fiscal Year
2005	.88	1.53	d.17	d.23	2.11
2006	.93	1.17	d.01	d.15	1.94
2007	.92	1.27	.22	d.31	2.10
2008	.95	1.69	.06	d.22	2.33
2009	.97	1.60	.13	d.20	2.40

QUARTERLY DIVIDENDS PAID [D]

Calendar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	.32	.325	.325	.325	1.30
2005	.325	.333	.333	.333	1.32
2006	.333	.335	.338	.338	1.34
2007	.34	.34	.34	.34	1.36
2008	.34	.35	.35	.35	

BUSINESS: WGL Holdings, Inc. is the parent of Washington Gas Light, a natural gas distributor in Washington, D.C. and adjacent areas of VA and MD to residential and comm'l users (1,046,201 meters). Hampshire Gas, a federally regulated sub., operates an underground gas-storage facility in WV. Non-regulated subs.: Wash. Gas Energy Svcs. sells and delivers natural gas and provides energy related products in the D.C. metro area; Wash. Gas Energy Sys. designs/installs comm'l heating, ventilating, and air cond. systems. American Century Inv. own 8.2% of common stock; Off./dir. less than 1% (2008 proxy). Chmn. & CEO: J.H. DeGraffenreidt, Jr.; D.C. and VA. Addr.: 1100 H St., N.W., Washington, D.C. 20080. Tel.: 202-624-6410. Internet: www.wghholdings.com.

WGL Holdings performed well in fiscal 2008 (ended September 30th). New rates, higher consumption, and customer growth contributed to the annual top-line increase of almost 18%. Meanwhile, the initiation of regulatory mechanisms like the weather normalization adjustment (WMA) minimized usage volatility. And margins widened due to the successful expansion of the "asset optimization" program. The retail energy segment did not fare as well. This reflects lower margins from electric sales, partially offset by slightly higher margins for natural gas sales. Weakness here stemmed from milder weather and the loss of certain government and large commercial accounts. However, on balance, WGL's earnings per share advanced 11%. Next up,

We look for December-period results to be little changed compared to last year. Aggregate electric and gas customer accounts declined in the most recent quarter, due to the extended run-up in natural gas and electric prices from February through June. That caused WGL to halt its mass market customer acquisition efforts. However, as the company begins fiscal 2009, lower energy prices have allowed it to resume those efforts. It may take some time for these programs to pick up steam, consequently, WGL will likely experience growth in electricity sales, but natural gas volumes will probably continue to decline, as the last of the lost government accounts roll off its books. However, **The company should still register a modest 3% earnings increase for fiscal 2009.** The utility segment should benefit from an estimated 9,500 new accounts, as well as higher contributions from its expanded asset management strategy. Meanwhile, the retail energy business may get a boost from stronger gross margins on natural gas sales. Also, rate case approvals and capital projects augur well for WGL's prospects. However, a likely decline in usage compared to last year's unusually high levels could be an offset.

These neutrally ranked shares may appeal to conservative income-oriented accounts. Indeed, this is evident in their good dividend yield, strong Safety rank (1), solid financial strength (A), and top mark for Price Stability (100).

Bryan Fong *December 12, 2008*

(A) Fiscal years end Sept. 30th.
(B) Based on diluted shares. Excludes nonrecurring losses: '01, (13¢); '02, (34¢); '07, (4¢) discontinued operations: '08, (16¢). Qtly egs. may not sum to total, due to change in shares outstanding. Next earnings report due late Jan.
(C) Dividends historically paid early February, May, August, and November. ■ Dividend reinvestment plan available.
(D) Includes deferred charges and intangibles. '07: $322.2 million, $6.51/sh.
(E) In millions, adjusted for stock split.

Company's Financial Strength	A
Stock's Price Stability	100
Price Growth Persistence	50
Earnings Predictability	65

SOUTHERN UNION NYSE-SUG

RECENT PRICE 12.55 | P/E RATIO 6.6 (Trailing: 6.6 Median: 25.0) | RELATIVE P/E RATIO 0.65 | DIV'D YLD 4.8% | VALUE LINE

TIMELINESS 3 Lowered 9/14/07
SAFETY 3 New 3/24/00
TECHNICAL 3 Lowered 10/31/08
BETA 1.10 (1.00 = Market)

2011-13 PROJECTIONS

	Price	Gain	Ann'l Total Return
High	45	(+260%)	38%
Low	30	(+140%)	26%

Insider Decisions

	J	F	M	A	M	J	J	A	S
to Buy	0	0	0	1	0	0	1	0	0
Options	0	0	1	0	0	0	0	0	0
to Sell	0	0	0	0	0	0	0	0	0

Institutional Decisions

	1Q2008	2Q2008	3Q2008
to Buy	110	118	108
to Sell	108	114	115
Hld(000)	89232	91593	91341

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	© VALUE LINE PUB., INC.	11-13
	7.22	8.68	10.12	12.89	16.51	19.04	16.99	14.73	15.88	29.77	20.30	14.75	22.22	17.95	19.54	21.14	24.70	24.80	Revenues per sh A	27.10
	.62	.58	.82	1.30	1.43	1.43	1.29	1.27	1.26	1.64	1.78	1.29	2.77	2.71	2.96	3.15	3.30	3.65	"Cash Flow" per sh	4.60
	.15	.26	.26	.43	.54	.49	.31	.25	.20	.16	.56	.67	1.24	1.59	1.33	1.75	1.85	2.05	Earnings per sh A B	2.65
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.30	.40	.60	.64	Div'ds Decl'd per sh Dm	.76
	.70	.50	1.03	1.51	1.58	1.71	1.86	1.78	1.92	1.91	1.47	.99	2.79	2.48	2.90	4.58	4.45	4.40	Cap'l Spending per sh	4.55
	5.55	5.47	5.65	3.37	3.88	7.10	7.64	7.33	14.05	11.12	10.78	11.42	12.74	14.43	15.20	16.96	17.25	18.80	Book Value per sh D	26.50
	26.67	36.84	37.01	37.24	37.59	37.65	39.38	41.09	52.39	64.93	63.57	80.66	81.09	112.63	119.77	123.77	124.00	125.00	Common Shs Outst'g C	132.00
	20.2	15.9	20.3	12.5	14.1	21.2	37.5	NMF	NMF	NMF	29.6	17.9	13.4	15.0	15.3	17.5	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	14.0
	1.23	.94	1.33	.84	.88	1.22	1.85	NMF	NMF	NMF	1.61	1.02	.71	.89	.83	.92			Relative P/E Ratio	.93
	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5%	1.3%			Avg Ann'l Div'd Yield	2.1%
	669.3	605.2	631.7	1932.8	1290.6	1188.5	1800.0	2019.4	2340.2	2616.7	3060	3100	Revenues ($mill) A	3530
	12.2	10.4	11.1	12.0	36.6	43.7	114.0	195.7	217.1	228.7	245	275	Net Profit ($mill)	375
	39.5%	40.5%	49.0%	35.3%	29.2%	35.7%	37.7%	26.6%	33.5%	29.4%	33.0%	33.0%	Income Tax Rate	33.0%
	1.8%	1.7%	1.3%	.7%	2.8%	3.7%	6.3%	9.7%	9.3%	8.7%	8.0%	8.9%	Net Profit Margin	10.5%
	63.0%	62.0%	53.1%	66.4%	63.3%	65.0%	63.1%	62.5%	56.7%	57.3%	59.5%	58.0%	Long-Term Debt Ratio	55.5%
	37.0%	38.0%	46.9%	33.6%	36.7%	35.0%	36.2%	41.6%	38.4%	38.2%	38.6%	40.0%	Common Equity Ratio	43.0%
	803.2	792.0	1569.6	2151.5	1867.6	2632.1	3416.6	3903.2	4740.1	5166.1	5565	5880	Total Capital ($mill)	6130
	648.4	678.3	1487.2	1456.3	1456.4	3144.8	3207.5	3485.8	4584.4	5102.3	5500	5750	Net Plant ($mill)	6500
	3.7%	3.6%	2.3%	2.9%	4.3%	3.3%	4.8%	8.5%	6.5%	6.1%	6.5%	6.5%	Return on Total Cap'l	6.5%
	4.1%	3.6%	1.5%	1.8%	5.3%	4.7%	8.0%	10.6%	10.6%	11.6%	11.5%	11.5%	Return on Shr. Equity	10.5%
	4.1%	3.6%	1.5%	1.8%	5.3%	4.7%	10.2%	11.0%	11.0%	12.0%	12.0%	12.0%	Return on Com Equity	11.0%
	4.1%	3.6%	1.5%	1.8%	5.3%	4.7%	10.2%	11.0%	9.1%	8.3%	7.0%	7.5%	Retained to Com Eq	7.5%
	--	--	--	--	--	--	7%	9%	24%	21%	30%	29%	All Div'ds to Net Prof	27%

% TOT. RETURN 11/08

	THIS STOCK	VL ARITH. INDEX
1 yr.	-52.6	-41.9
3 yr.	-36.9	-30.8
5 yr.	-13.0	-10.6

Target Price Range 2011 | 2012 | 2013

CAPITAL STRUCTURE as of 9/30/08
Total Debt $3593.0 mill. Due in 5 Yrs $1616 mill.
LT Debt $3264.9 mill. LT Interest $101 mill.
(Est'd LT interest earned: 2.9x; total interest coverage: 2.6x)
(54% of Cap'l)
Leases, Uncapitalized: Annual rentals $18.4 mill.
Pension Assets-12/08 $128.3 mill.
Oblig. $163.0 mill.
Pfd. Stock $230.0 mill. Pfd. Div'd. $17.4 mill.
(4% of Cap'l)
Common Stock 123,932,918 shs.
as of 10/31/08
MARKET CAP: $1.6 billion (Mid Cap)

CURRENT POSITION ($MILL.)	2006	2007	9/30/08
Cash Assets	5.8	6.7	3.1
Receivables	298.2	358.5	193.3
Inventory (Avg Cst)	241.1	263.6	344.1
Other	145.7	180.5	334.0
Current Assets	690.8	808.3	874.5
Accts Payable	300.6	335.3	226.9
Debt Due	561.0	658.3	438.1
Other	339.1	430.1	558.8
Current Liab.	1200.9	1323.7	1223.2

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '05-'07 to '11-'13
Revenues	2.0%	-2.5%	6.5%
"Cash Flow"	8.0%	14.0%	8.0%
Earnings	13.0%	39.5%	9.5%
Dividends	--	--	22.0%
Book Value	12.0%	5.0%	10.0%

Calendar	QUARTERLY REVENUES ($ mill.) A Mar.31	Jun.31	Sep.30	Dec.31	Full Year
2005	767.6	505.1	255.0	691.7	2019.4
2006	547.2	552.4	554.4	676.2	2340.2
2007	780.2	588.1	525.5	722.9	2616.7
2008	952.7	739.1	657.3	716.9	3060
2009	960	745	665	730	3100

Calendar	EARNINGS PER SHARE A B Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2005	.82	.10	.13	.53	1.58
2006	.60	.10	.08	.57	1.35
2007	.53	.39	.34	.49	1.75
2008	.64	.43	.34	.44	1.85
2009	.57	.45	.38	.55	2.05

Calendar	QUARTERLY DIVIDENDS PAID Dm Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2004	--	--	--	--	--
2005	--	--	--	--	--
2006	--	.10	.10	.10	.30
2007	.10	.10	.10	.10	.40
2008	.15	.15	.15	.15	

BUSINESS: Southern Union Co. owns and operates assets in the regulated and unregulated natural gas industry and is primarily engaged in the transportation, storage, and distribution of natural gas. Serves about 550,000 residential, commercial, and industrial customers through its Missouri Gas Energy and New England Gas Company. Acq. Panhandle Energy 6/03; Sld Richardson Energy Services 3/06. Sold Rhode Island operations 2/08; PG Energy 1/06. Owns 100% interest in CCE Holdings. Has 2,337 employees. Officers & directors own 10.1% of stock (3/08 proxy). Chairman, President & Chief Executive Officer: George L. Lindemann. Inc.: Delaware. Address: 5444 Westheimer Road, Houston, TX 77056. Telephone: 713-989-2000. Internet: www.southernunionco.com.

Southern Union's recent operating results were a mixed bag. Its top line advanced 25% for the September period. Most of this gain stemmed from the Gathering & Processing (G&P) and Transportation & Storage (T&S) units. However, hurricanes disrupted access to third-party fractionating facilities and damaged offshore pipelines. Meanwhile, some of its accounts receivables had to be written off as the associated companies filed for bankruptcy. The T&S unit experienced diminished profitability as its investment in Citrus Corp. did not fare so well. And lower market-driven pipeline capacity release sales at the Distribution segment hurt that unit's contributions. In sum, the added expenses squeezed margins and resulted in the flat year-to-year earnings comparison.

Thus, we have reduced our fourth-quarter and 2008 earnings estimates. The economic slowdown and credit crunch may possibly result in the writedown of more of SUG's receivables. Thus we look for a low single-digit decline in the fourth-quarter top line. Still, more than 80% of SUG's cash flow is derived from stable, regulated businesses with predominantly fixed-fee structures, such as interstate pipelines, storage, and liquid natural gas (LNG) terminaling. All told, this year's share net ought to advance almost 6% over 2007's.

Next year's financial results will likely be subdued. Revenue gains ought to slow down as a result of customer conservation. And we have trimmed a nickel off our earnings per share estimate to compensate for the aforementioned rise in expenses.

Still, capital projects augur well for Southern's long-term prospects. The Florida Gas Transmission phase VIII expansion is on schedule and on budget. Meanwhile, the Trunkline LNG infrastructure enhancement project continues to progress nicely, and is projected to be in service during the second quarter of 2009.

These average ranked shares have lost about 50% since our September review. But the pullback may provide an attractive entry point for patient accounts. Meantime, the solid dividend yield may appeal to income-oriented investors.

Bryan Fong *December 12, 2008*

Company's Financial Strength	B+
Stock's Price Stability	65
Price Growth Persistence	90
Earnings Predictability	45

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A) Fiscal year ends June 30th through 2004; December 31st beg. in 2005. (B) Based on diluted shares. Excludes non-recurring per share gain (loss): '01, 81¢; '03, 55¢; '06, (1.30¢). Next egs. report due late Jan. (C) In millions, adjusted for stock splits. (D) Annual 5% common stock dividend suspended end of 2006. Cash dividend started April 2008. Qtrly div'ds paid January, April, July, and October. ■ Dividend Reinvestment plan available. (E) Incl. intang. In 2007: $89.2 mill., $0.72/sh.

Missouri Gas Energy
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

Line No.		Proxy Group of Nine Value Line Natural Gas Distribution Companies	Southern Union Company
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	5.08 %	5.08 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	1.41 (2)	1.41 (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	6.49 %*	6.49 %*
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	0.40 (3)	0.60 (4)
5.	Adjusted Prospective Bond Yield	6.89	7.09
6.	Equity Risk Premium (5)	5.47	7.41
7.	Risk Premium Derived Common Equity Cost Rate	12.36 %	14.50 %

* Actual Moody's A Rated Public Utility Bond Yield for January 2009 is 6.39%.

Notes: (1) Derived in Note (3) on page 6 of this Schedule.

(2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 1.41% from page 4 of this Schedule.

(3) Adjustment to reflect the Baa1 Moody's Bond Rating of the Proxy Group of Nine Value Line Natural Gas Distribution Companies as shown on page 2 of this Schedule. Normally, Mr. Hanley would take 2/3 of the spread between Baa and A2 Public Utility Bonds (2/3 * 1.55% = 1.03%) to reflect the risk of the proxy group. However Mr. Hanley believes that the current spread between A2 and Baa2 rated public utility bonds are not representitive of the long-term and will utilize a normalized spread of 0.60% between A2 and Baa2 rated public utility bonds based upon a weighting explained in depth in Mr. Hanley's direct testimony. A spread of 0.40%, or 2/3 of the normalized spread will be applied to the prospective yield on A rated public utility bonds relative to the proxy group of nine Value Line natural gas distribution companies as shown above.

(4) Adjustment to reflect the Baa3 Moody's Bond Rating of Southern Union Company as shown on page 2 of this Schedule. Normally, Mr. Hanley would take the full spread between A2 and Baa2 yields (1.51%) and add it to prospective A yield to reflect the risk of Southern Union Company. However Mr. Hanley believes that the current spread between A2 and Baa2 rated public utility bonds are not representitive of the long-term and will utilize a normalized spread of 0.60% between A2 and Baa2 rated public utility bonds based upon a weighting explained in depth in Mr. Hanley's direct testimony. The full spread of 0.60% will be applied to the prospective yield on A rated public utility bonds relative to Southern Union Company as shown above.

(5) From page 5 of this Schedule.

Comparison of Bond Ratings, Business Risk and Financial Risk Profiles for the
Proxy Group of Nine Value Line Natural Gas Distribution Companies
and Southern Union Company

		Moody's Bond Rating February 2009		Standard & Poor's Bond Rating February 2009							
		Bond Rating	Numerical Weighting (1)	Bond Rating	Numerical Weighting (1)	Credit Rating	Numerical Weighting (1)	Business Risk Profile (2)	Numerical Weighting (1)	Financial Risk Profile (2)	Numerical Weighting (1)
	Proxy Group of Nine Value Line Natural Gas Distribution Companies										
ATG	AGL Resources Inc.	A3	7.0	A-	7.0	A-	7.0	Excellent	1.0	Intermediate	3.0
ATO	Atmos Energy Corp.	Baa3	10.0	BBB+	8.0	BBB+	8.0	Excellent	1.0	Aggressive	4.0
LG	The Laclede Group, Inc.	A3	7.0	A	6.0	A	6.0	Excellent	1.0	Intermediate	3.0
NJR	New Jersey Resources Corp.	NR	--	NR	--	A	6.0	Excellent	1.0	Intermediate	3.0
NWN	Northwest Natural Gas Co.	A2	6.0	AA-	4.0	AA-	4.0	Excellent	1.0	Intermediate	3.0
PNY	Piedmont Natural Gas Co., Inc.	A3	7.0	A	6.0	A	6.0	Excellent	1.0	Intermediate	3.0
SJI	South Jersey Industries, Inc.	Baa1	8.0	A	6.0	BBB+	8.0	Excellent	1.0	Aggressive	4.0
SWX	Southwest Gas Corporation	Baa3	10.0	BBB-	10.0	BBB-	10.0	Strong	2.0	Aggressive	4.0
WGL	WGL Holdings, Inc.	A2	6.0	AA-	4.0	AA-	4.0	Excellent	1.0	Intermediate	3.0
	AVERAGE	Baa1	7.5	A	6.4	A-	7.0	Excellent	1.0	Intermediate	3.3
	Southern Union Company	Baa3	10.0	BBB-	10.0	BBB-	10.0	Satisfactory	3.0	Aggressive	4.0

Notes: (1) From page 3 of this Schedule.
(2) From Standard & Poor's Issuer Ranking: U.S. Natural Gas Distribution and Integrated Gas Companies, Strongest to Weakest and U.S. Midstream Energy Companies, Strongest to Weakest February 2, 2009 shown on Schedule 4 of this Exhibit.
(3) Ratings, business risk and financial risk profiles are those of Atlanta Gas Light Company.
(4) Ratings, business risk and financial risk are those of Laclede Gas Company.
(5) Ratings, business risk and financial risk profiles are those of New Jersey Natural Gas Company.
(6) Ratings, business risk and financial risk profiles are those of South Jersey Gas.
(7) Ratings, business risk and financial risk profiles are those of Washington Gas Light Company.

Source Information: Moody's Investors Service
Standard & Poor's Global Utilities Rating Service

Missouri Gas Energy
Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings
Standard & Poor's Business and Financial Risk Profiles

Moody's Bond Rating	Numerical Bond Weighting	Standard & Poor's Bond Rating
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-

Standard & Poor's

Business Risk Profile	Numerical Weighting	Financial Risk Profile	Numerical Weighting
Excellent	1	Minimal	1
Strong	2	Modest	2
Satisfactory	3	Intermediate	3
Weak	4	Aggressive	4
Vulnerable	5	Highly Leveraged	5

Moody's
Comparison of Interest Rate Trends
for the Two Months Ending January 2009 (1)

Years	Corporate Bonds Aaa Rated	Public Utility Bonds Aa Rated	Public Utility Bonds A Rated	Public Utility Bonds Baa Rated	Spread - Corporate v. Public Utility Bonds Aa (Pub. Util.) over Aaa (Corp.)	Spread - Corporate v. Public Utility Bonds A (Pub. Util.) over Aaa (Corp.)	Spread - Corporate v. Public Utility Bonds Baa (Pub. Util.) over Aaa (Corp.)	Spread - Public Utility Bonds A over Aa	Spread - Public Utility Bonds Baa over A
December-08	5.06	5.93	6.54	8.13 %					
January-09	5.05	6.01	6.39	7.90					
Average of Last 2 Months	5.06 %	5.97 %	6.47 %	8.02 %	0.91 %	1.41 %	2.96 %	0.50 %	1.55 %

Notes: (1) All yields are distributed yields.

Average 5 yr Spread Between Moody's A and Baa Rated Public Utility Bonds	0.37% 80% Weight
January 2009 Spread Between Moody's A and Baa Rated Public Utility Bonds	1.51% 20% Weight
5 yr Normalized Spread Between Moody's A and Baa Rated Public Utility Bonds	0.60%

Source of Information: Mergent Bond Record, February 2009, Vol. 76, No. 2.

Missouri Gas Energy
Judgment of Equity Risk Premium for
the Proxy Group of Nine Value Line Natural Gas Distribution Companies

Line No.		Proxy Group of Nine Value Line Natural Gas Distribution Companies	Southern Union Company
1.	Calculated equity risk premium based on the total market using the beta approach (1)	6.80 %	10.69 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with Baa rated bonds (2)	4.13	4.13
3.	Average equity risk premium	5.47 %	7.41 %

Notes:
(1) From page 6 of this Schedule.
(2) From page 8 of this Schedule.

Missouri Gas Energy
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
the Proxy Group of Nine Value Line Natural Gas Distribution Companies

Line No.		Proxy Group of Nine Value Line Natural Gas Distribution Companies	Southern Union Company
1.	Arithmetic mean total return rate on the Standard & Poor's 500 Composite Index - 1926-2007 (1)	12.30 %	12.30 %
2.	Arithmetic mean yield on Aaa and Aa Corporate Bonds 1926-2007 (2)	(6.10)	(6.10)
3.	Historical Equity Risk Premium	6.20 %	6.20 %
4.	Forecasted 3-5 year Total Annual Market Return (3)	28.85 %	28.85 %
5.	Prospective Yield an Aaa Rated Corporate Bonds (4)	(5.08)	(5.08)
6.	Forecasted Equity Risk Premium	23.77 %	23.77 %
7.	Conclusion of Equity Risk Premium (5)	9.71 %	9.71 %
8.	Adjusted Value Line Beta (6)	0.70	1.10
9.	Beta Adjusted Equity Risk Premium	6.80 %	10.69 %

Notes:

(1) From Ibbotson SBBI - 2008 Valuation Yearbook - Market Results for Stocks Bonds Bills and Inflation for 1926-2007, Morningstar, Inc., 2008 Chicago, IL.

(2) From Moody's Industrial Manual and Mergent Bond Record Monthly Update.

(3) From page 3 of Schedule FJH-18.

(4) Average forecast based upon six quarterly estimates of Aaa rated corporate bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated February 1, 2009 (see page 7 of this Schedule). The estimates are detailed below.

First Quarter 2009	4.90 %
Second Quarter 2009	4.90
Third Quarter 2009	5.00
Fourth Quarter 2009	5.10
First Quarter 2010	5.20
Second Quarter 2010	5.40
Average	5.08 %

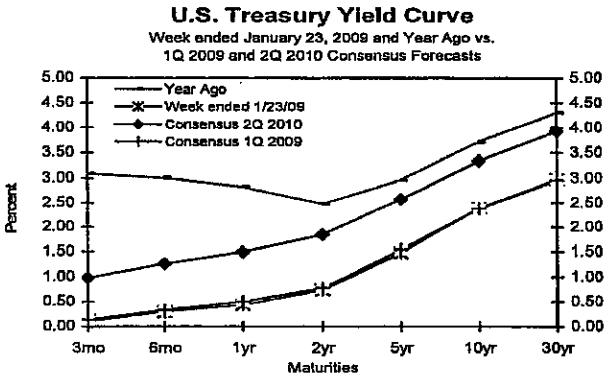
(5) The average of the Historical Equity Risk Premium of 6.20% from Line No. 3 and the Forecasted Equity Risk Premium of 23.77% from Line No. 6 ((6.20% + 23.77%) / 2 = 14.98%. Normally, Mr. Hanley would use this average in his Risk Premium Analysis. However, in Mr. Hanley's opinion, the current and recent substantial volatility in the stock market is extraordinary and not representative of the expected long-term. Consequently, in this instance, Mr. Hanley will apply a 20% weight to the forecasted risk premium of 23.77% and an 80% weight to the historical risk premium of 6.20%, resulting in a 9.71% weighted risk premium.

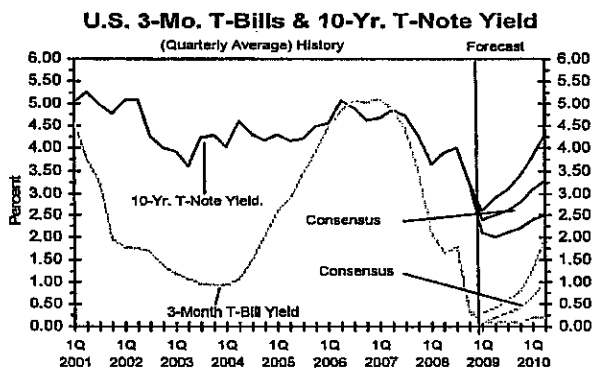
(6) From page 9 of this Schedule.

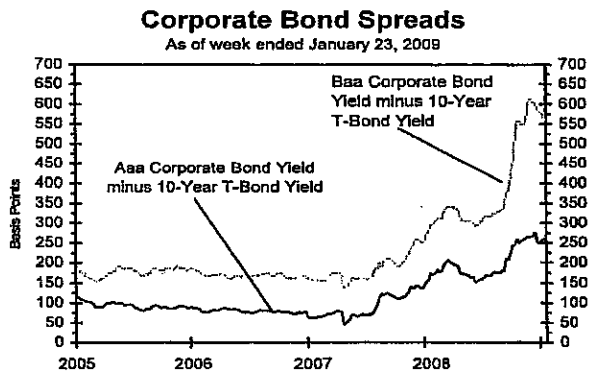
Consensus Forecasts Of U.S. Interest Rates And Key Assumptions[1]

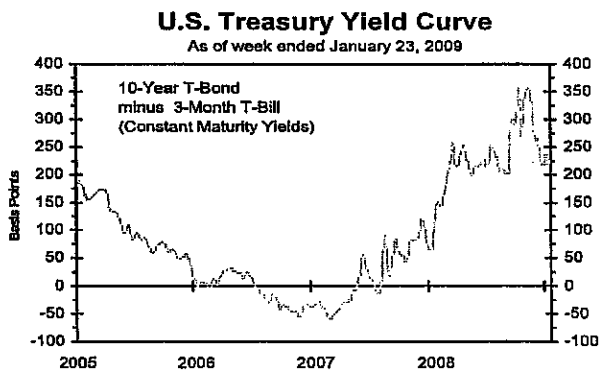
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week End				Average For Month			Latest Q	1Q	2Q	3Q	4Q	1Q	2Q
Interest Rates	Jan.23	Jan.16	Jan.9	Jan.2	Dec.	Nov.	Oct.	4Q 2008	2009	2009	2009	2009	2010	2010
Federal Funds Rate	0.20	0.10	0.10	0.10	0.16	0.39	0.97	0.51	0.1	0.1	0.2	0.3	0.5	0.9
Prime Rate	3.25	3.25	3.25	3.25	3.61	4.00	4.56	4.06	3.2	3.2	3.2	3.3	3.6	3.9
LIBOR, 3-mo.	1.13	1.13	1.37	1.43	1.83	2.28	4.06	2.11	1.4	1.3	1.2	1.2	1.5	1.9
Commercial Paper, 1-mo.	0.16	0.13	0.09	0.12	0.25	0.61	1.55	0.80	0.5	0.5	0.5	0.6	0.9	1.3
Treasury bill, 3-mo.	0.12	0.12	0.11	0.09	0.03	0.19	0.69	0.30	0.1	0.2	0.3	0.4	0.7	1.0
Treasury bill, 6-mo.	0.30	0.29	0.30	0.27	0.26	0.74	1.23	0.74	0.3	0.4	0.5	0.6	0.9	1.3
Treasury bill, 1 yr.	0.43	0.43	0.44	0.37	0.49	1.07	1.42	0.99	0.5	0.6	0.7	0.9	1.2	1.5
Treasury note, 2 yr.	0.74	0.74	0.80	0.79	0.82	1.21	1.61	1.21	0.8	0.9	1.0	1.2	1.5	1.8
Treasury note, 5 yr.	1.48	1.42	1.62	1.55	1.52	2.29	2.73	2.18	1.5	1.6	1.8	2.0	2.3	2.6
Treasury note, 10 yr.	2.39	2.30	2.48	2.24	2.42	3.53	3.81	3.25	2.4	2.5	2.6	2.8	3.1	3.3
Treasury note, 30 yr.	2.98	2.93	3.03	2.68	2.87	4.00	4.17	3.68	3.0	3.1	3.2	3.4	3.7	3.9
Corporate Aaa bond	4.93	4.89	5.04	4.74	5.08	6.15	6.28	5.84	4.9	4.9	5.0	5.1	5.2	5.4
Corporate Baa bond	7.98	7.97	8.23	8.07	8.46	9.22	8.88	8.85	7.9	7.6	7.5	7.4	7.4	7.5
State & Local bonds	4.80	4.80	5.02	5.24	5.56	5.23	5.50	5.43	4.8	4.7	4.6	4.6	4.7	4.8
Home mortgage rate	4.96	4.96	5.01	5.1	5.33	6.09	6.20	5.87	4.9	4.8	4.9	5.0	5.2	5.4
	History								Consensus Forecasts-Quarterly Avg.					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	*4Q**	1Q	2Q	3Q	4Q	1Q	2Q
Key Assumptions	2007	2007	2007	2007	2008	2008	2008	*2008*	2009	2009	2009	2009	2010	2010
Major Currency Index	81.9	79.3	77.0	73.3	72.0	70.9	73.5	81.3	80.1	80.8	81.1	81.1	81.6	81.9
Real GDP	0.1	4.8	4.8	-0.2	0.9	2.8	-0.5	*-5.2*	-3.7	-1.2	0.8	1.8	2.5	2.7
GDP Price Index	4.1	2.0	1.5	2.8	2.6	1.1	4.2	*0.3*	1.1	1.3	1.5	1.5	1.8	1.7
Consumer Price Index	3.7	4.6	2.8	5.0	4.3	5.0	6.7	-9.2	-2.2	1.0	1.8	1.8	2.0	2.0

Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Definitions reported here are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for the U.S. Federal Reserve Board's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS). ***Figures for 4Q 2008 Real GDP and GDP Chained Price Index are consensus forecasts based on a special question asked of the panelists this month (see page 14). Actual figures will be released on January 30th.***









Missouri Gas Energy
Derivation of Mean Equity Risk Premium Based on a Study
Using Holding Period Returns of Public Utilities

Line No.		Over Baa Rated Public Utility Bonds AUS Consultants - Utility Services Study (1)
Time Period		1928-2007
1.	Arithmetic Mean Holding Period Returns (2): Standard & Poor's Public Utility Index	11.24 %
2.	Arithmetic Mean Yield on: Moody's Baa Rated Public Utility Bonds	(7.11)
3.	Equity Risk Premium	4.13 %

Notes: (1) S&P Public Utility Index and Moody's Public Utility Bond Average Annual Yields 1928-2007, (AUS Consultants - Utility Services, 2008).

(2) Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.

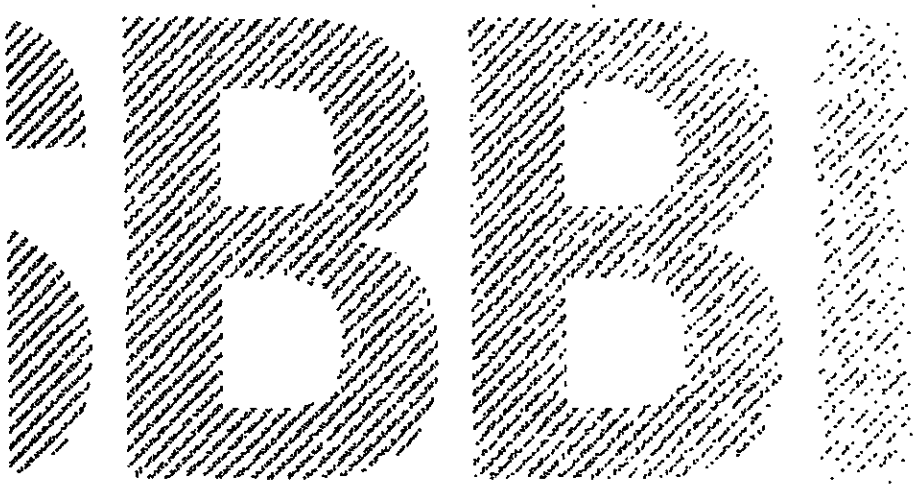
Missouri Gas Energy
Value Line Adjusted Betas for
the Proxy Group of Nine Value Line Natural Gas Distribution Companies
and Southern Union Company

	Value Line Adjusted Beta
Proxy Group of Nine Value Line Natural Gas Distribution Companies	
AGL Resources Inc.	0.75
Atmos Energy Corp.	0.65
The Laclede Group, Inc.	0.65
New Jersey Resources Corp.	0.70
Northwest Natural Gas Co.	0.60
Piedmont Natural Gas Co., Inc.	0.70
South Jersey Industries, Inc.	0.75
Southwest Gas Corporation	0.75
WGL Holdings, Inc.	0.75
Average	0.70
Median	0.70
Southern Union Company	1.10

Source of Information: Value Line Investment Survey (Standard Edition) December 12, 2008.

Ibbotson® SBBI®
2008 Valuation Yearbook

Market Results for
Stocks, Bonds, Bills, and Inflation
1926–2007



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For example, if bond yields rise unexpectedly, investors can receive a higher coupon payment from a newly issued bond than from the purchase of an outstanding bond with the former lower-coupon payment. The outstanding lower-coupon bond will thus fail to attract buyers, and its price will decrease, causing its yield to increase correspondingly, as its coupon payment remains the same. The newly priced outstanding bond will subsequently attract purchasers who will benefit from the shift in price and yield; however, those investors who already held the bond will suffer a capital loss due to the fall in price.

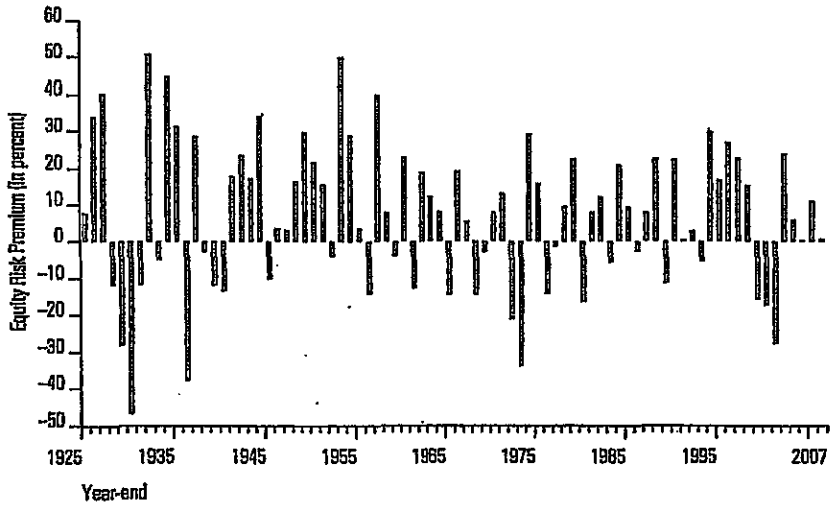
Anticipated changes in yields are assessed by the market and figured into the price of a bond. Future changes in yields that are not anticipated will cause the price of the bond to adjust accordingly. Price changes in bonds due to unanticipated changes in yields introduce price risk into the total return. Therefore, the total return on the bond series does not represent the riskless rate of return. The income return better represents the unbiased estimate of the purely riskless rate of return, since an investor can hold a bond to maturity and be entitled to the income return with no capital loss.

Arithmetic versus Geometric Means

The equity risk premium data presented in this book are arithmetic average risk premia as opposed to geometric average risk premia. The arithmetic average equity risk premium can be demonstrated to be most appropriate when discounting future cash flows. For use as the expected equity risk premium in either the CAPM or the building block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building block approach are additive models, in which the cost of capital is the sum of its parts. The geometric average is more appropriate for reporting past performance, since it represents the compound average return.

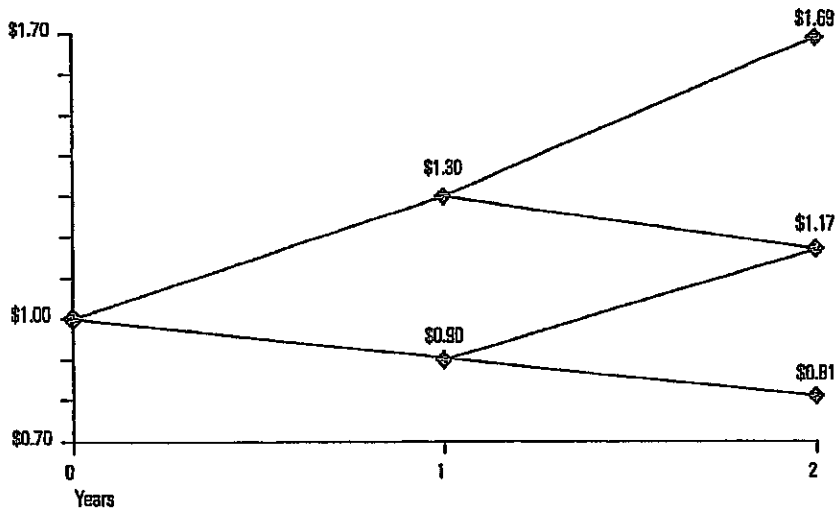
The argument for using the arithmetic average is quite straightforward. In looking at projected cash flows, the equity risk premium that should be employed is the equity risk premium that is expected to actually be incurred over the future time periods. Graph 5-3 shows the realized equity risk premium for each year based on the returns of the S&P 500 and the income return on long-term government bonds. (The actual, observed difference between the return on the stock market and the riskless rate is known as the realized equity risk premium.) There is considerable volatility in the year-by-year statistics. At times the realized equity risk premium is even negative.

Graph 5-3
Realized Equity Risk Premium Per Year
1926–2007



To illustrate how the arithmetic mean is more appropriate than the geometric mean in discounting cash flows, suppose the expected return on a stock is 10 percent per year with a standard deviation of 20 percent. Also assume that only two outcomes are possible each year: +30 percent and –10 percent (i.e., the mean plus or minus one standard deviation). The probability of occurrence for each outcome is equal. The growth of wealth over a two-year period is illustrated in Graph 5-4.

Graph 5-4



The most common outcome of $1.17 is given by the geometric mean of 8.2 percent. Compounding the possible outcomes as follows derives the geometric mean:

$$[(1+0.30)\times(1-0.10)]^{2}-1=0.082$$

However, the expected value is predicted by compounding the arithmetic, not the geometric, mean. To illustrate this, we need to look at the probability-weighted average of all possible outcomes:

(0.25 × $1.69)	= $0.4225
+ (0.50 × $1.17)	= $0.5850
+ (0.25 × $0.81)	= $0.2025
Total	$1.2100

Therefore, $1.21 is the probability-weighted expected value. The rate that must be compounded to achieve the terminal value of $1.21 after 2 years is 10 percent, the arithmetic mean:

$$\$1\times(1+0.10)^{2}=\$1.21$$

The geometric mean, when compounded, results in the median of the distribution:

$$\$1\times(1+0.082)^{2}=\$1.17$$

The arithmetic mean equates the expected future value with the present value; it is therefore the appropriate discount rate.

Appropriate Historical Time Period

The equity risk premium can be estimated using any historical time period. For the U.S., market data exists at least as far back as the late 1800s. Therefore, it is possible to estimate the equity risk premium using data that covers roughly the past 100 years.

Our equity risk premium covers the time period from 1926 to the present. The original data source for the time series comprising the equity risk premium is the Center for Research in Security Prices. CRSP chose to begin their analysis of market returns with 1926 for two main reasons. CRSP determined that the time period around 1926 was approximately when quality financial data became available. They also made a conscious effort to include the period of extreme market volatility from the late twenties and early thirties; 1926 was chosen because it includes one full business cycle of data before the market crash of 1929. These are the most basic reasons why our equity risk premium calculation window starts in 1926.

Implicit in using history to forecast the future is the assumption that investors' expectations for future outcomes conform to past results. This method assumes that the price of taking on risk changes only slowly, if at all, over time. This "future equals the past" assumption is most applicable to a random time-series variable. A time-series variable is random if its value in one period is independent of its value in other periods.

Does the Equity Risk Premium Revert to Its Mean over Time?

Some have argued that the estimate of the equity risk premium is upwardly biased since the stock market is currently priced high. In other words, since there have been several years with extraordinarily high market returns and realized equity risk premia, the expectation is that returns and realized equity risk premia will be lower in the future, bringing the average back to a normalized level. This argument relies on several studies that have tried to determine whether reversion to the mean exists in stock market prices and the equity risk premium.[3] Several academics contradict each other on this topic; moreover, the evidence supporting this argument is neither conclusive nor compelling enough to make such a strong assumption.

Our own empirical evidence suggests that the yearly difference between the stock market total return and the U.S. Treasury bond income return in any particular year is random. Graph 5-3, presented earlier, illustrates the randomness of the realized equity risk premium.

3 Fama, Eugene F., and Kenneth R. French. "Permanent and Temporary Components of Stock Prices," *Journal of Political Economy*, April 1988, pp. 246–273. Poterba, James M., and Lawrence H. Summers. "Mean Reversion in Stock Prices," *Journal of Financial Economics*, October 1988, pp. 27–59. Lo, Andrew W., and A. Craig MacKinlay. "Stock Market Prices Do Not Follow Random Walks: Evidence from a Simple Specification Test," *The Review of Financial Studies*, Spring 1988, pp. 42–66. Finnerty, John D., and Dean Leistikow. "The Behavior of Equity and Debt Risk Premiums: Are They Mean Reverting and Downward-Trending?" *The Journal of Portfolio Management*, Summer 1993, pp. 73–84. Ibbotson, Roger G., and Scott L. Lummer. "The Behavior of Equity and Debt Risk Premiums: Comment," *The Journal of Portfolio Management*, Summer 1994, pp. 98–100. Finnerty, John D., and Dean Leistikow. "The Behavior of Equity and Debt Risk Premiums: Reply to Comment," *The Journal of Portfolio Management*, Summer 1994, pp. 101–102.

A statistical measure of the randomness of a return series is its serial correlation. Serial correlation (or autocorrelation) is defined as the degree to which the return of a given series is related from period to period. A serial correlation near positive one indicates that returns are predictable from one period to the next period and are positively related. That is, the returns of one period are a good predictor of the returns in the next period. Conversely, a serial correlation near negative one indicates that the returns in one period are inversely related to those of the next period. A serial correlation near zero indicates that the returns are random or unpredictable from one period to the next. Table 5-3 contains the serial correlation of the market total returns, the realized long-horizon equity risk premium, and inflation.

Table 5-3
Interpretation of Annual Serial Correlations
1926–2007

Series	Serial Correlation	Interpretation
Large Company Stock Total Returns	0.03	Random
Equity Risk Premium	0.03	Random
Inflation Rates	0.65	Trend

The significance of this evidence is that the realized equity risk premium next year will not be dependent on the realized equity risk premium from this year. That is, there is no discernable pattern in the realized equity risk premium—it is virtually impossible to forecast next year's realized risk premium based on the premium of the previous year. For example, if this year's difference between the riskless rate and the return on the stock market is higher than last year's, that does not imply that next year's will be higher than this year's. It is as likely to be higher as it is lower. The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean) of its past values.

Table 5-4 also indicates that the equity risk premium varies considerably by decade. The complete decades ranged from a high of 17.9 percent in the 1950s to a low of 0.3 percent in the 1970s, however, thus far the 2000s have shown a –2.4 percent equity risk premium. This look at historical equity risk premium reveals no observable pattern.

Table 5-4
Long-Horizon Equity Risk Premium by Decade
1926–2007

1920s*	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s**	1997-2007
17.6%	2.3%	8.0%	17.9%	4.2%	0.3%	7.9%	12.1%	–2.4%	4.2%

*Based on the period 1926–1929.

**Based on the period 2000–2007.

Finnerty and Leistikow perform more econometrically sophisticated tests of mean reversion in the equity risk premium. Their tests demonstrate that—as we suspected from our simpler tests—the equity risk premium that was realized over 1926 to the present was almost perfectly free of mean reversion and had no statistically identifiable time trends.[4] Lo and MacKinlay conclude, "the rejection of the random walk for weekly returns does not support a mean-reverting model of asset prices."

Choosing an Appropriate Historical Period

The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable.[5] Furthermore, because an average of the realized equity risk premium is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants. The magnitude of how shorter periods can affect the result will be explored later in this chapter.

Some analysts estimate the expected equity risk premium using a shorter, more recent time period on the basis that recent events are more likely to be repeated in the near future; furthermore, they believe that the 1920s, 1930s, and 1940s contain too many unusual events. This view is suspect because all periods contain "unusual" events. Some of the most unusual events of the last hundred years took place quite recently, including the inflation of the late 1970s and early 1980s, the October 1987 stock market crash, the collapse of the high-yield bond market, the major contraction and consolidation of the thrift industry, the collapse of the Soviet Union, the development of the European Economic Community, and the attacks of September 11, 2001.

It is even difficult for economists to predict the economic environment of the future. For example, if one were analyzing the stock market in 1987 before the crash, it would be statistically improbable to predict the impending short-term volatility without considering the stock market crash and market volatility of the 1929–1931 period.

Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 82-year period starting with 1926 is representative of what can happen: it includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to

4 Though the study performed by Finnerty and Leistikow demonstrates that the traditional equity risk premium exhibits no mean reversion or drift, they conclude that, "the processes generating these risk premiums are generally mean-reverting." This conclusion is completely unrelated to their statistical findings and has received some criticism. In addition to examining the traditional equity risk premia, Finnerty and Leistikow include analyses on "real" risk premia as well as separate risk premia for income and capital gains. In their comments on the study, Ibbotson and Lummer show that these "real" risk premia adjust for inflation twice, "creating variables with no economic content." In addition, separating income and capital gains does not shed light on the behavior of the risk premia as a whole.

5 This assertion is further corroborated by data presented in *Global Investing: The Professional's Guide to the World of Capital Markets* (by Roger G. Ibbotson and Gary P. Brinson and published by McGraw-Hill, New York). Ibbotson and Brinson constructed a stock market total return series back to 1790. Even with some uncertainty about the accuracy of the data before the mid-nineteenth century, the results are remarkable. The real (adjusted for inflation) returns that investors received during the three 50-year periods and one 52-year period between 1790 and 1990 did not differ greatly from one another (that is, in a statistically significant amount). Nor did the real returns differ greatly from the overall 202-year average. This finding implies that because real stock-market returns have been reasonably consistent over time, investors can use these past returns as reasonable bases for forming their expectations of future returns.

repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect "unusual" events to occur from time to time, and their return expectations reflect this.

A Look at the Historical Results

It is interesting to take a look at the realized returns and realized equity risk premium in the context of the above discussion. Table 5-5 shows the average stock market return and the average (arithmetic mean) realized long-horizon equity risk premium over various historical time periods. Similarly, Graph 5-5 shows the average (arithmetic mean) realized equity risk premium calculated through 2007 for different starting dates. The table and the graph both show that using a longer historical period provides a more stable estimate of the equity risk premium. The reason is that any unique period will not be weighted heavily in an average covering a longer historical period. It better represents the probability of these unique events occurring over a long period of time.

Table 5-5
Stock Market Return and Equity Risk Premium Over Time
1926–2007

Period Length	Period Dates	Large Company Stock Arithmetic Mean Total Return	Long-Horizon Equity Risk Premium
82 Years	1926–2007	12.3%	7.1%
70 Years	1938–2007	12.8%	7.3%
60 Years	1948–2007	13.1%	7.1%
50 Years	1958–2007	12.2%	6.5%
40 Years	1968–2007	11.8%	4.4%
30 Years	1978–2007	14.0%	6.3%
20 Years	1988–2007	13.0%	6.6%
15 Years	1993–2007	11.8%	6.0%
10 Years	1998–2007	7.2%	1.9%
5 Years	2003–2007	13.2%	6.3%

Looking carefully at Graph 5-5 will clarify this point. The graph shows the realized equity risk premium for a series of time periods through 2007, starting with 1926. In other words, the first value on the graph represents the average realized equity risk premium over the period 1926–2007. The next value on the graph represents the average realized equity risk premium over the period 1927–2007, and so on, with the last value representing the average over the most recent five years, 2003–2007. Concentrating on the left side of Graph 5-5, one notices that the realized equity risk premium, when measured over long periods of time, is relatively stable. In viewing the graph from left to right, moving from longer to shorter historical periods, one sees that the value of the realized equity risk premium begins to decline significantly. Why does this occur? The reason is that the severe bear market of 1973–1974 is receiving proportionately more weight in the shorter, more recent average. If you continue to follow the line to the right, however, you will also notice that when 1973 and 1974 fall out of the recent average, the realized equity risk premium jumps up by nearly 1.2 percent.

Missouri Gas Energy
Spreads Between Moody's A and Baa Rated Public Utility Bond Yields
for Five Years One Month Ending January 2009

DATE	Moody's A Rated Public Utility Bond Yields	Moody's Baa Rated Public Utility Bond Yields	Spread Between A and Baa Rated Bond Yields
Jan-04	6.15%	6.47%	0.32%
Feb-04	6.15%	6.28%	0.13%
Mar-04	5.97%	6.12%	0.15%
Apr-04	6.35%	6.46%	0.11%
May-04	6.62%	6.75%	0.13%
Jun-04	6.46%	6.84%	0.38%
Jul-04	6.27%	6.67%	0.40%
Aug-04	6.14%	6.45%	0.31%
Sep-04	5.98%	6.27%	0.29%
Oct-04	5.94%	6.17%	0.23%
Nov-04	5.97%	6.16%	0.19%
Dec-04	5.92%	6.10%	0.18%
Jan-05	5.78%	5.95%	0.17%
Feb-05	5.61%	5.76%	0.15%
Mar-05	5.83%	6.01%	0.18%
Apr-05	5.64%	5.95%	0.31%
May-05	5.53%	5.88%	0.35%
Jun-05	5.40%	5.70%	0.30%
Jul-05	5.51%	5.80%	0.29%
Aug-05	5.50%	5.81%	0.31%
Sep-05	5.52%	5.83%	0.31%
Oct-05	5.79%	6.08%	0.29%
Nov-05	5.88%	6.19%	0.31%
Dec-05	5.80%	6.14%	0.34%
Jan-06	5.75%	6.06%	0.31%
Feb-06	5.82%	6.11%	0.29%
Mar-06	5.98%	6.26%	0.28%
Apr-06	6.29%	6.54%	0.25%
May-06	6.42%	6.59%	0.17%
Jun-06	6.40%	6.61%	0.21%
Jul-06	6.37%	6.61%	0.24%
Aug-06	6.20%	6.43%	0.23%
Sep-06	6.00%	6.26%	0.26%
Oct-06	5.98%	6.24%	0.26%
Nov-06	5.80%	6.04%	0.24%
Dec-06	5.81%	6.05%	0.24%
Jan-07	5.96%	6.16%	0.20%
Feb-07	5.90%	6.10%	0.20%
Mar-07	5.85%	6.10%	0.25%
Apr-07	5.97%	6.24%	0.27%
May-07	5.99%	6.23%	0.24%
Jun-07	6.30%	6.54%	0.24%
Jul-07	6.25%	6.49%	0.24%
Aug-07	6.24%	6.51%	0.27%
Sep-07	6.18%	6.45%	0.27%
Oct-07	6.11%	6.36%	0.25%
Nov-07	5.97%	6.27%	0.30%
Dec-07	6.16%	6.51%	0.35%
Jan-08	6.02%	6.35%	0.33%
Feb-08	6.21%	6.60%	0.39%
Mar-08	6.21%	6.68%	0.47%
Apr-08	6.29%	6.81%	0.52%
May-08	6.27%	6.79%	0.52%
Jun-08	6.38%	6.93%	0.55%
Jul-08	6.40%	6.97%	0.57%
Aug-08	6.37%	6.98%	0.61%
Sep-08	6.49%	7.15%	0.66%
Oct-08	7.56%	8.58%	1.02%
Nov-08	7.20%	8.98%	1.78%
Dec-08	6.54%	8.13%	1.59%
Jan-09	6.39%	7.90%	1.51%
Average	6.09%	6.46%	0.37%

Source of Information:
Mergent Bond Record, February 2009, Volume 76, No. 2.

Schedule FJH-17

Missouri Gas Energy
Indicated Common Equity Cost Rate Through Use
of the Capital Asset Pricing Model
for the Proxy Group of Nine Value Line Natural Gas Distribution Companies
and Southern Union Company

Line No.		Proxy Group of Nine Value Line Natural Gas Distribution Companies	Southern Union Company
1.	Traditional Capital Asset Pricing Model (1)	10.92 %	15.23 %
2.	Empirical Capital Asset Pricing Model (1)	11.73 %	14.96 %
3.	Conclusion	11.33 %	15.10 %

Notes:
(1) From page 2 of this Schedule.

Missouri Gas Energy
Indicated Common Equity Cost Rate Through Use
of the Capital Asset Pricing Model

	1	2	3
	Value Line Adjusted Beta	Company-Specific Risk Premium Based on Market Premium of 10.77% (1)	CAPM Result Including Risk-Free Rate of 3.38% (2)
		Traditional Capital Asset Pricing Model (3)	
Proxy Group of Nine Value Line Natural Gas Distribution Companies			
AGL Resources Inc.	0.75	8.08 %	11.46 %
Atmos Energy Corp.	0.65	7.00	10.38
The Laclede Group, Inc.	0.65	7.00	10.38
New Jersey Resources Corp.	0.70	7.54	10.92
Northwest Natural Gas Co.	0.60	6.46	9.84
Piedmont Natural Gas Co., Inc.	0.70	7.54	10.92
South Jersey Industries, Inc.	0.75	8.08	11.46
Southwest Gas Corporation	0.75	8.08	11.46
WGL Holdings, Inc.	0.75	8.08	11.46
Average	0.70	7.54 %	10.92 %
Median	0.70	7.54 %	10.92 %
Southern Union Company	1.10	11.85 %	15.23 %
		Empirical Capital Asset Pricing Model (4)	
Proxy Group of Nine Value Line Natural Gas Distribution Companies			
AGL Resources Inc.	0.75	8.75 %	12.13 %
Atmos Energy Corp.	0.65	7.95	11.33
The Laclede Group, Inc.	0.65	7.95	11.33
New Jersey Resources Corp.	0.70	8.35	11.73
Northwest Natural Gas Co.	0.60	7.54	10.92
Piedmont Natural Gas Co., Inc.	0.70	8.35	11.73
South Jersey Industries, Inc.	0.75	8.75	12.13
Southwest Gas Corporation	0.75	8.75	12.13
WGL Holdings, Inc.	0.75	8.75	12.13
Average	0.70	8.35 %	11.73 %
Median	0.70	8.35 %	11.73 %
Southern Union Company	1.10	11.58 %	14.96 %

See page 3 for notes.

Missouri Gas Energy
Development of the Market-Required Rate of Return on Common Equity Using
the Capital Asset Pricing Model for
the Proxy Group of Nine Natural Gas Distribution Companies
and Southern Union Company
Adjusted to Reflect a Forecasted Risk-Free Rate and Market Return

Notes:

(1) For reasons explained in Mr. Hanley's accompanying direct testimony, from the two previous month-end (December 2008 – January 2009), as well as a recently available (February 13, 2009), Value Line Summary & Index, a forecasted 3-5 year total annual market return of 28.85% can be derived by averaging the 3-month and spot forecasted total 3-5 year total appreciation, converting it into an annual market appreciation and adding the Value Line average forecasted annual dividend yield.

The 3-5 year average total market appreciation of 148% produces a four-year average annual return of 25.49% ($(2.48^{.25}) - 1$). When the average annual forecasted dividend yield of 3.36% is added, a total average market return of 28.85% (3.36% + 25.49%) is derived.

The 3-month and spot forecasted total market return of 28.85% minus the risk-free rate of 3.38% (developed in Note 2) is 25.47% (28.85% - 3.38%). The Morningstar, Inc. (Ibbotson Associates) calculated market premium of 7.10% for the period 1926-2007 results from a total market return of 12.30% less the average income return on long-term U.S. Government Securities of 5.20% (12.30% - 5.20% = 7.10%). This is then averaged with the 25.54% Value Line market premium resulting in a 16.29% market premium. In Mr. Hanley's opinion, the current and recent substantial volatility in the stock market is extraordinary and not representative of the expected long-term. Consequently, in this instance, Mr. Hanley will weight what he believes is an extraordinary expected capital appreciation at 20% and will weight the historical market premium at 80%. The product of this weighting is 10.77% ((.20 * 25.47%) + (.80 * 7.10%)) which will be then multiplied by the beta in column 1 of page2 of this Exhibit.

(2) For reasons explained in Mr. Hanley's direct testimony, the risk-free rate that Mr. Hanley relies upon for his CAPM analysis is the average forecast based upon six quarterly estimates of 30-year Treasury Note yields per the consensus of nearly 50 economists reported in the Blue Chip Financial Forecasts dated February 1, 2009 (see Page 7 of Schedule FJH-15). The estimates are detailed below:

	30-Year Treasury Note Yield
First Quarter 2009	2.90%
Second Quarter 2009	3.00
Third Quarter 2009	3.20
Fourth Quarter 2009	3.40
First Quarter 2010	3.80
Second Quarter 2010	4.00
Average	3.38%

(3) The traditional Capital Asset Pricing Model (CAPM) is applied using the following formula:

$R_S = R_F + \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

(4) The empirical CAPM is applied using the following formula:

$R_S = R_F + .25 (R_M - R_F) + .75 \beta (R_M - R_F)$

Where R_S = Return rate of common stock
R_F = Risk-Free Rate
β = Value Line Adjusted Beta
R_M = Return on the market as a whole

Source of Information:
Value Line Summary & Index
Blue Chip Financial Forecasts, February 1, 2009
Value Line Investment Survey (Standard Edition) December 12, 2008.
Ibbotson SBBI – 2008 Valuation Yearbook – Market Results for Stocks, Bonds, Bills, and Inflation for 1926-2007, Morningstar, Inc., 2008, Chicago,

Missouri Gas Energy
Comparable Earnings Analysis
for a Proxy Group of Nine Non-Utility Companies Comparable to the
Proxy Group of Nine Value Line Natural Gas Distribution Companies (1)

Proxy Group of Nine Non-Utility Companies Comparable to the Proxy Group of Nine Value Line Natural Gas Distribution Companies (1)	Adj Beta	Unadj Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth, or Partner's Capital 5-Year Projected (2) Percent	Student's Statistic
Automatic Data Proc.	0.75	0.58	2.2033	0.0635	16.00 %	(0.57)
Gallagher (Arthur J.)	0.70	0.51	2.2842	0.0658	23.50	0.58
Erie Indemnity Co.	0.70	0.51	2.0646	0.0595	22.00	0.35
Intl Flavors & Frag.	0.70	0.53	2.2368	0.0644	25.50	0.89
Kraft Foods	0.65	0.44	2.2521	0.0649	10.50	(1.42)
Northrop Grumman	0.75	0.56	2.2626	0.0652	12.50	(1.11)
Raytheon Co.	0.75	0.59	2.1222	0.0611	14.50	(0.81)
Sara Lee Corp.	0.70	0.50	2.2565	0.0650	24.00	0.66
Exxon Mobil Corp.	0.80	0.62	2.2771	0.0656	29.00	1.43
Average	0.72	0.54	2.2177	0.0639		
Average for the Proxy Group of Nine Value Line Natural Gas Distribution Companies	0.70	0.52	2.1000 (3)	0.0605		
Median (4)					22.00%	

See Page 3 for notes.

Missouri Gas Energy
Comparable Earnings Analysis
for a Proxy Group of Twenty Non-Utility Companies Comparable to
Southern Union Company (5)

Proxy Group of Twenty Non-Utility Companies Comparable to Southern Union Company (5)	Adj Beta	Unadj Beta	Standard Error of the Regression	Standard Deviation of Beta	Rate of Return on Book Common Equity, Net Worth, or Partner's Capital 5-Year Projected (2) Percent	Student's Statistic
Air Products & Chem.	1.10	1.08	2.3626	0.0681	23.00 %	0.70
AptarGroup	1.00	1.00	2.5946	0.0747	12.50	(0.68)
Avery Dennison	1.00	0.95	2.3991	0.0691	14.50	(0.42)
Amer. Express	1.15	1.21	2.4846	0.0716	28.00	1.35
Ball Corp.	1.10	1.12	2.5673	0.0740	17.50	(0.02)
Can. National Railway	1.10	1.13	2.5814	0.0744	15.50	(0.29)
Rockwell Collins	1.05	1.02	2.4591	0.0708	36.00 (6)	2.40
Dow Chemical	1.00	0.96	2.5945	0.0747	10.50	(0.94)
DST Systems	1.00	0.97	2.3933	0.0689	17.00	(0.09)
Eaton Corp.	1.10	1.14	2.4252	0.0699	18.00	0.04
Fortune Brands	1.00	0.99	2.3314	0.0672	10.50	(0.94)
Honeywell Intl	1.10	1.08	2.4089	0.0694	24.50	0.89
Mettler-Toledo Intl	1.00	0.97	2.5052	0.0722	32.50	1.94
News Corp.	1.05	1.03	2.3072	0.0665	9.00	(1.14)
Praxair Inc.	1.05	1.02	2.3077	0.0665	19.50	0.24
Donnelley (R.R) & Sons	1.05	1.02	2.5412	0.0732	14.50	(0.42)
Republic Services	1.05	1.01	2.3435	0.0675	15.00	(0.35)
Stanley Works	1.10	1.09	2.6062	0.0751	15.50	(0.29)
Travelers Cos.	1.05	1.02	2.5261	0.0728	11.50	(0.81)
Time Warner	1.00	0.96	2.2781	0.0656	8.50	(1.20)
Average	1.05	1.04	2.4509	0.0706		
Southern Union Company	1.10	1.09	2.4005 (7)	0.0692		
Median (4)					15.50%	
Conservative Median (8)					15.50%	

See Page 3 for notes.

Missouri Gas Energy
Comparable Earnings Analysis

Notes:

(1) The criteria for selection of the proxy group of nine non-utility companies was that the non-utility companies be domestic and have a meaningful rate of return on book common equity, shareholders' equity, net worth, or partners' capital for each of the five years ended 2007 and projected 2011- 2013 as reported in Value Line Investment Survey (Standard Edition). The proxy group of nine non-utility companies was selected based uponthe proxy group of nine Value Line natural gas distribution companies' unadjusted beta range of 0.40 – 0.64 and standard error of the regression range of 1.9155 – 2.2845. These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression as detailed in Mr. Hanley's direct testimony. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and standard errors of the regression.

(2) 2011 - 2013.

(3) The standard deviation of group of ten Value Line electric and combination electric and gas companies' standard error of the regression is 0.0923. The standard deviation of the standarderror of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.0923 = \frac{2.100}{\sqrt{518}} = \frac{2.100}{22.7596}$$

(4) Median five year projected rate of return on book common equity, shareholder's equity, net worth, or partners' capital.

(5) The criteria for selection of the proxy group of twenty companies was that the non-utility companies be domestic and have a meaningful projected rate of return on book common equity, shareholders' equity, net worth, or partners' capital 2011 - 2013 as reported in Value Line Investment Survey (Standard Edition). The proxy group of twenty non-utility companies was selected based uponSouthern Union Company's unadjusted beta range of 0.95 – 1.23 and standard error of the regression range of 2.1896 – 2.6114. These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression as detailed in Mr. Hanley's direct testimony. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and standard errors of the regression.

(6) The Student's T-statistic associated with these returns exceeds 2.083 at the 95% level of confidence. Therefore, they have been excluded, as outliers, to arrive at proper mean projected returns as fully explained in Mr. Hanley's testimony.

(7) The standard deviation of the proxy group of eight Value Line natural gas distribution companies' standard error of the regression is 0.2110 (2.4005 / 22.7596).

(8) Median of the five year historical and five year projected return on book common equity, shareholder's equity, net worth or partner's capital excluding returns identified as outliers as outlined on Note 6) above.

Source of Information: Value Line, Inc., December 15, 2008
Value Line Investment Survey (Standard Edition)

Missouri Gas Energy
Authorized Returns on Equity and Equity Ratios for
Natural Gas Distribution Companies from January 2008 to February 2009

Company	State	Case Identification	Date	Return on Equity (%)		Common Equity /Total Cap (%)	
Northern States Power Co-WI	Wisconsin	D-4220-UR-115 (gas)	1/8/2008	10.75		52.51	
Wisconsin Electric Power Co.	Wisconsin	D-5-UR-103 (WEP-GAS)	1/17/2008	10.75		54.36	
Wisconsin Gas LLC	Wisconsin	D-5-UR-103 (WG)	1/17/2008	10.75		46.64	
North Shore Gas Co.	Illinois	D-07-0241	2/5/2008	9.99		56.00	
Peoples Gas Light & Coke Co.	Illinois	D-07-0242	2/5/2008	10.19		56.00	
Indiana Gas Co.	Indiana	Ca-43298	2/13/2008	10.20	(1)	48.99	(1)
Avista Corp.	Oregon	D-UG-181	3/31/2008	10.00	(1)	50.00	(1)
Duke Energy Ohio Inc.	Ohio	C-07-0589-GA-AIR	5/28/2008	10.50	(1)	55.76	(1)
Atmos Energy Corp.	Texas	GUD-9762	6/24/2008	10.00		48.27	
Questar Gas Co.	Utah	D-07-057-13	6/27/2008	10.00	(1)	51.38	(1)
San Diego Gas & Electric Co.	California	AP-06-12-009 (gas)	7/31/2008	10.70	(1)	49.00	(1)
Southern California Gas Co.	California	AP-06-12-010	7/31/2008	10.82	(1)	48.00	(1)
SourceGas Distribution LLC	Colorado	D-08S-108G	8/27/2008	10.25	(1)	53.13	(1)
Chesapeake Utilities Corp.	Delaware	D-07-186	9/2/2008	10.25	(1)	61.81	(1)
Atmos Energy Corp.	Georgia	D-27163-U	9/17/2008	10.70		45.00	
Central Illinois Light Co.	Illinois	D-07-0588	9/24/2008	10.68		46.50	
Central Illinois Public	Illinois	D-07-0589	9/24/2008	10.68		47.91	
Illinois Power Co.	Illinois	D-07-0590	9/24/2008	10.68		51.76	
Avista Corp.	Idaho	C-AVU-G-08-01	9/30/2008	10.20	(1)	47.94	(1)
New Jersey Natural Gas Co.	New Jersey	D-GR-07110889	10/3/2008	10.30	(1)	51.20	(1)
Puget Sound Energy Inc.	Washington	D-UG-07-2301	10/8/2008	10.15	(1)	46.00	(1)
CenterPoint Energy Resources	Texas	GUD 9791	10/20/2008	10.06		55.40	
Piedmont Natural Gas Co.	North Carolina	D-G-9, Sub 550	10/24/2008	10.60	(1)	51.00	(1)
Public Service Co. of NC	North Carolina	D-G-5, Sub 495	10/24/2008	10.60	(1)	54.00	(1)
Southwest Gas Corp.	California	A-07-12-022 (SoCalDiv)	11/21/2008	10.50	(1)	47.00	(1)
Southwest Gas Corp.	California	A-07-12-022 (NoCalDiv)	11/21/2008	10.50	(1)	47.00	(1)
Southwest Gas Corp.	California	A-07-12-022 (LkTah)	11/21/2008	10.50	(1)	47.00	(1)
Narragansett Electric Co.	Rhode Island	D-3943	11/24/2008	10.50		NA	
Columbia Gas of Ohio Inc	Ohio	C-08-0072-GA-AIR	12/3/2008	10.39	(1)	NA	(1)
Southwest Gas Corp.	Arizona	D-G-01551A-07-0504	12/24/2008	10.00		43.44	
Northwest Natural Gas Co.	Washington	D-UG-08-0546	12/26/2008	10.10	(1)	50.74	(1)
Avista Corp.	Washington	D-UG-08-0417	12/29/2008	10.20	(1)	46.30	(1)
Michigan Gas Utilities Corp	Michigan	C-U-15549	1/13/2009	10.45		46.49	
New England Gas Company	Massachusetts	DPU 08-35	2/2/2009	10.05		34.19	
			Average	10.38		49.71	
			Average of Litigated Cases	10.42		48.89	

Notes:
(1) Order followed stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.

Source of Information:
Report downloaded from Regulatory Research Associates, Inc. (RRA) an SNL Energy Company on March 12, 2009.