

*Exhibit No.:*  
*Issue:* *Rate of Return*  
*Witness:* *David Murray*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Direct Testimony*  
*Case No.:* *IR-2004-0272*  
*Date Testimony Prepared:* *March 11, 2004*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**DIRECT TESTIMONY**

**OF**

**DAVID MURRAY**

**FIDELITY TELEPHONE COMPANY**

**CASE NO. IR-2004-0272**

*Jefferson City, Missouri*  
*March 2004*

**BEFORE THE PUBLIC SERVICE COMMISSION**  
**OF THE STATE OF MISSOURI**

In the Matter of the Application of Fidelity                     )  
Telephone Company for Authority to File,                     )  
Establish, and Put into Effect New, Increased,                     )       Case No. IR-2004-0272  
or Revised Rates and Charges for Telephone                     )  
Service.                     )

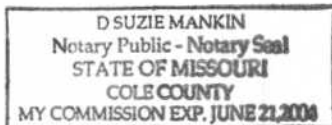
AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI        )  
                                      )       ss.  
COUNTY OF COLE        )

David Murray, being of lawful age, on his oath states: that he has participated in the preparation of the following direct testimony in question and answer form, consisting of 18 pages to be presented in the above case; that the answers in the following direct testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

  
\_\_\_\_\_  
David Murray

Subscribed and sworn to before me this 10<sup>th</sup> day of March 2004.



  
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**DAVID MURRAY**  
**FIDELITY TELEPHONE COMPANY**  
**CASE NO. IR-2004-0272**

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Direct Testimony of  
David Murray

- TT-2001-328 Oregon Farmers Mutual Telephone Company
- TC-2002-1076 BPS Telephone Company
- GR-2001-292 Southern Union Company d/b/a Missouri Gas Energy
- ER-2001-672 UtiliCorp United, Inc. d/b/a Missouri Public Service
- ER-2002-424 The Empire District Electric Company
- GM-2003-0238 Southern Union Company d/b/a Missouri Gas Energy
- WR-2003-0500 Missouri-American Water Company
- ER-2004-0034, Aquila, Inc. d/b/a Aquila Networks-MPS-Electric and  
HR-2004-0024 Aquila Networks-L&P-Electric and Steam
- ST-2003-0562, Osage Water Company  
WT-2003-0563
- GR-2004-0072 Aquila, Inc. d/b/a Aquila Networks-MPS and  
Aquila Networks-L&P

Q. Have you made recommendations in any other cases before this Commission?

A. Yes, I have made recommendations on finance, merger and acquisition cases before this Commission.

Q. What is the purpose of your testimony in this case?

A. My testimony is presented to provide support for my recommendation to the Commission as to a fair and reasonable rate of return for the Missouri jurisdictional small telephone company rate base of Fidelity Telephone Company.

Q. Have you prepared any schedules in connection with your analysis of the cost of capital for Fidelity Telephone Company?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Fidelity Telephone Company, Case No. IR-2004-0272" consisting of 19 schedules, which are attached to this direct testimony.

Q. What do you conclude is the cost of capital for Fidelity Telephone Company?

A. My analysis leads me to conclude that the current cost of capital for Fidelity Telephone Company is 9.37 percent.

1 Q. Please describe the approach for determining a utility company's cost of  
2 capital.

3 A. The total dollars of capital for the utility company are determined as of a  
4 specific point in time. This total dollar amount is then apportioned into each specific capital  
5 component, i.e. common equity, long-term debt, preferred stock and short-term debt. A  
6 weighted cost for each capital component is determined by multiplying each capital  
7 component ratio by the appropriate embedded cost or by the estimated cost of common  
8 equity component. The individual weighted costs are summed to arrive at a total weighted  
9 cost of capital. This total weighted cost of capital is synonymous with the fair rate of return  
10 for the utility company.

11 Q. Why is a total weighted cost of capital synonymous with a fair rate of return?

12 A. From a financial viewpoint, a company employs different forms of capital to  
13 support or fund the assets of the company. Each different form of capital has a cost and these  
14 costs are weighted proportionately to fund each dollar invested in the assets.

15 Assuming that the various forms of capital are within a reasonable balance and are  
16 costed correctly, the resulting total weighted cost of capital, when applied to rate base, will  
17 provide the funds necessary to service the various forms of capital. Thus, the total weighted  
18 cost of capital corresponds to a fair rate of return for the utility company.

19 **Capital Structure and Embedded Costs**

20 Q. What capital structure have you employed in developing a weighted cost of  
21 capital for Fidelity Telephone Company?

22 A. I have employed the capital structure that existed as of August 31, 2003, for  
23 Fidelity Communications Company on a consolidated basis. Schedule 19 presents this

1 capital structure and associated capital ratios. The resulting capital structure consists of  
2 84.10 percent common equity and 15.90 percent long-term debt and preferred stock.

3 Q. Why did you utilize Fidelity Communications Company's consolidated capital  
4 structure for purposes of your recommended rate of return for Fidelity Telephone Company?

5 A. Fidelity Telephone Company is a subsidiary of Fidelity Communications  
6 Company. In response to Staff Data Request Number 0048, Fidelity Telephone Company  
7 provided balance sheet information for Fidelity Telephone Company on a stand-alone basis,  
8 Fidelity Communications Company on a consolidated basis and Fidelity Communications  
9 Company for the parent company only. When reviewing this information I discovered that  
10 Fidelity Communications Company issued debt for its subsidiaries. Consequently, it is  
11 evident that Fidelity Communications Company is providing its subsidiaries with both their  
12 debt and equity capital. Therefore, it is appropriate to utilize Fidelity Communications  
13 Company's consolidated capital structure for ratemaking purposes in this case.

14 Q. What was the embedded cost of long-term debt and preferred stock for  
15 Fidelity Telephone Company at August 31, 2003?

16 A. The embedded cost of long-term debt and preferred stock for Fidelity  
17 Telephone Company at August 31, 2003, was 5.38 percent as indicated in Fidelity Telephone  
18 Company's response to Data Request (DR) 0049.

19 **Cost of Equity**

20 Q. How did you analyze those factors by which the cost of equity for Fidelity  
21 Telephone Company may be determined?

22 A. Because Fidelity Telephone Company does not have stock that is publicly  
23 traded, I performed an analysis of the cost of equity of a comparable group of four publicly

traded telephone companies. I have used a weighted average of the discounted cash flow (DCF) model, the risk premium model and the capital asset pricing model (CAPM). I weighted these estimates as follows: DCF-75 percent, Risk Premium-10 percent, and CAPM-15 percent.

**The Discounted Cash Flow Model**

Q. Please describe the Discounted Cash Flow (DCF) model.

A. The DCF model is a market-oriented approach for deriving the cost of equity. The return on equity calculated from the DCF model is inherently capable of attracting capital. This results from the theory that security prices adjust continually over time, so that an equilibrium price exists, and the stock is neither undervalued nor overvalued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The continuous growth form of the DCF model was used in this analysis. This model relies upon the fact that a company's common stock price is dependent upon the expected cash dividends and upon cash flows received through capital gains or losses that result from stock price changes. The interest rate which discounts the sum of the future expected cash flows to the current market price of the common stock is the calculated cost of equity. This can be expressed algebraically as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{\text{Discounted by } k} + \frac{\text{Expected Price in 1 year}}{\text{Discounted by } k} \quad (1)$$

Since the expected price of a stock in one year is equal to the present price multiplied by one plus the growth rate, equation (1) can be restated as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{(1 + k)} + \frac{\text{Present Price } (1+g)}{(1 + k)} \quad (2)$$

where  $g$  equals the growth rate and  $k$  equals the cost of equity. Letting the present price equal  $P_0$  and expected dividends equal  $D_1$ , the equation appears as:

$$P_0 = \frac{D_1}{(1+k)} + \frac{P_0(1+g)}{(1+k)} \quad (3)$$

The cost of equity equation may also be algebraically represented as:

$$k = \frac{D_1}{P_0} + g \quad (4)$$

Thus, the cost of common stock equity,  $k$ , is equal to the expected dividend yield ( $D_1/P_0$ ) plus the expected growth in dividends ( $g$ ) continuously summed into the future. The growth in dividends and implied growth in earnings will be reflected in the current price. Therefore, this model also recognizes the potential of capital gains or losses associated with owning a share of common stock.

The discounted cash flow method is a continuous stock valuation model. The DCF theory is based on the following assumptions:

1. Market equilibrium;
2. Perpetual life of the company;
3. Constant payout ratio;
4. Payout of less than 100% earnings;
5. Constant price/earnings ratio;
6. Constant growth in cash dividends;
7. Stability in interest rates over time;
8. Stability in required rates of return over time; and

9. Stability in earned returns over time.

Flowing from these, it is further assumed that an investor's growth horizon is unlimited and that earnings, book values and market prices grow hand-in-hand. Even though the entire list of the above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

Q. Can you directly analyze the cost of equity for Fidelity Telephone Company?

A. No. In order to arrive at a company-specific DCF result, the company must have common stock that is market-traded and it must pay cash dividends. Fidelity Telephone Company does not have publicly traded stock. Therefore, as indicated earlier in my testimony, I determined an initial cost of equity based on a comparable group of four publicly traded telephone companies (Comparables). Please see Schedule 1 for the criteria used to select the four Comparables.

Q. Please explain how you determined the growth term of the DCF model for the Comparables.

A. I calculated the Comparables' historical growth rates of actual dividends per share (DPS), earnings per share (EPS) and book values per share (BVPS), as well as the sustainable growth rate. I also reviewed the projected growth rates for the Comparables. Schedules 4-1 through 4-4 list annual compound growth rates and geometric growth rates calculated for DPS, EPS and BVPS for the periods of 1992 through 2002 and 1997 through 2002. Schedule 7 presents the average of the five- and ten-year historical DPS, EPS and BVPS growth rates. Also presented are the sustainable growth rates and the projected growth rates for the Comparables. The average of the historical growth rates is 5.99 percent. The average of the sustainable growth rates is 7.02 percent (see Schedule 6). The projected

1 growth rates were obtained from three outside sources. I/B/E/S Inc.'s Institutional Brokers  
2 Estimate System, January 15, 2004, projects a five-year average growth forecast of  
3 2.10 percent for the Comparables. Standard & Poor's Corporation's Earnings Guide,  
4 January 2004, projects a five-year EPS average growth rate of 2.25 percent for the  
5 Comparables. Value Line Investment Survey: Ratings and Reports, October 3, 2003,  
6 projects the average compound annual rate of growth for EPS during the next three to five  
7 years will be 3.63 percent for the Comparables. An average of the historical growth rates,  
8 column (1) of Schedule 7, and the average projected growth rates, column (6) of Schedule 7,  
9 produces a reasonable growth rate of 4.95 percent. This rate of growth (g) is the rate that I  
10 used in the DCF model to calculate a cost of common equity for the Comparables.

11 Q. Please explain how you determined the yield term of the DCF model for the  
12 Comparables.

13 A. The expected yield term ( $D_1/P_0$ ) of the DCF model is calculated by dividing  
14 the amount of common dividends per share expected to be paid over the next twelve months  
15 ( $D_1$ ) by the current market price per share of the firm's common stock ( $P_0$ ). Even though the  
16 model requires the use of a current spot market price, I have chosen to use a monthly  
17 high / low average market price of the Comparables' common stock for the period from  
18 September 1, 2003, through December 31, 2003. This averaging technique is an attempt to  
19 minimize the effects on the dividend yield that can occur due to daily volatility in the stock  
20 market.

21 Schedule 8 presents the monthly high / low average stock market prices from  
22 September 1, 2003, through December 31, 2003, for the Comparables.

I referred to the Value Line Investment Survey: Ratings & Reports, October 3, 2003, to estimate the Comparables' common dividend declared per share for the next twelve months by averaging the projected dividend for 2003 and 2004. Column (1) of Schedule 9 illustrates these results.

Dividing the expected dividend in column (1) of Schedule 9 by the average high / low stock price in column (2) results in the projected dividend yield in column (3). I calculated the average dividend yield of the Comparables to arrive at my projected dividend yield of 3.55 percent.

Q. Please summarize the results of your expected dividend yield and growth rate analysis for the DCF cost of common equity for the Comparables.

A. The summarized DCF cost of common equity estimate for the Comparables is presented as follows:

$$\begin{array}{rcccl} \text{Yield (D}_1\text{/P}_0\text{)} & + & \text{Growth Rate (g)} & = & \text{Cost of Equity (k)} \\ 3.55\% & + & 4.95\% & = & 8.50\% \end{array}$$

This DCF derived cost of common equity estimate was used in the weighted cost of equity calculation in Schedule 13 to estimate the Comparables' cost of common equity.

### **The Risk Premium Model**

Q. What is the Risk Premium model?

A. The risk premium concept implies that the required return on equity is found by adding an explicit premium for risk to a current interest rate. Schedules 10-1 through 10-4 show the average risk premium above the yield of the Thirty-Year U.S. Treasury Bond (30-year Treasury) for each of the Comparables' expected return on common equity. My analysis shows, on average, that the cost of common equity for the Comparables is

1 19.48 percent (see Schedule 11). This cost of equity approach was not given the same weight  
2 as the DCF approach because the DCF model is the primary model used by the Financial  
3 Analysis Department to estimate the cost of equity in rate cases involving publicly traded  
4 companies. Additionally, because the risk premium model's results deviate considerably  
5 from the other two models, 1,098 basis points higher than the DCF results, and 817 basis  
6 points higher than the CAPM results, I have some heightened concern as to the validity of the  
7 risk premium results for this case.

8 **The Capital Asset Pricing Model**

9 Q. What is the Capital Asset Pricing Model (CAPM)?

10 A. The CAPM describes the relationship between a security's investment risk  
11 and its market rate of return. This relationship identifies the rate of return which investors  
12 expect a security to earn so that its market return is comparable with the market returns  
13 earned by other securities that have similar risk. The general form of the CAPM is as  
14 follows:

$$k = R_f + \beta (R_m - R_f)$$

16 where:

17  $k$  = the expected return on equity for a specific security;

18  $R_f$  = the risk-free rate;

19  $\beta$  = beta; and

20  $R_m - R_f$  = the market risk premium.

21 The first term of the CAPM is the risk-free rate ( $R_f$ ). The risk-free rate reflects the  
22 level of return that can be achieved without accepting any risk. In reality, there is no such  
23 risk-free asset, but it is generally represented by U.S. Treasury securities. For purposes of

1 this analysis, the risk-free rate was represented by the average yield on the 30-Year Treasury  
2 of 4.99 percent for January 2004 as calculated from Yahoo!Finance's website:  
3 [www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETIX&d=1y](http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETIX&d=1y).

4 The second term of the CAPM is beta ( $\beta$ ). Beta is an indicator of a security's  
5 investment risk. It represents the relative movement and relative risk between a particular  
6 security and the market as a whole (where beta for the market equals 1.00). Securities with  
7 betas greater than 1.00 exhibit greater volatility than do securities with betas less than 1.00.  
8 This causes a higher beta security to be less desirable and therefore requires a higher return in  
9 order to attract investor capital away from a lower beta security. Schedule 12 contains the  
10 appropriate betas for the Comparables.

11 The final term of the CAPM is the market risk premium ( $R_m - R_f$ ). The market risk  
12 premium represents the expected return from holding the entire market portfolio less the  
13 expected return from holding a risk-free investment. For purposes of this analysis, the  
14 appropriate market risk premium was determined to be 6.40 percent as calculated in Ibbotson  
15 Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2003 Yearbook.

16 Schedule 12 presents the CAPM analysis with regard to the Comparables. The  
17 CAPM analysis produces an estimated cost of equity of 11.31 percent for the Comparables.  
18 Because the DCF model is the primary model used by the Financial Analysis Department to  
19 determine the cost of equity in rate cases involving publicly traded utility companies, I do not  
20 believe the CAPM analysis should be weighted as heavily as the DCF cost of equity analysis.

21 Q. Based on your analysis of the DCF, risk premium and CAPM cost of equity  
22 results, what is your cost of equity estimate for the Comparables?

A. Based on my DCF, risk premium and CAPM analyses, I believe that the cost of equity should be 10.02 percent based on the following weighted average cost of common equity calculation (Schedule 13):

	<u>Weighting</u>	<u>Cost of Common Equity</u>	<u>Weighted Cost of Common Equity</u>
DCF	75.00%	8.50%	6.37%
Risk Premium	10.00%	19.48%	1.95%
CAPM	15.00%	11.31%	<u>1.70%</u>
Total			<u>10.02%</u>

Q. Do you believe that it is appropriate to apply the Comparables' cost of equity to Fidelity Telephone Company?

A. Not on its own. Because I have seen a reduction in the number of Comparables used in the generic telephone studies over the past several years from eleven in 1997 to four in 2004, I have some concern that this reduction may allow specific company characteristics to have a greater impact on the average cost of equity result. In order to calculate a more accurate average, it is better to have a larger number of Comparables. Furthermore, in light of the recent trend for telecommunications companies to branch out into higher growth segments such as wireless services, the Comparables used tend to have more non-regulated, high-growth operations that may cause the return on equity for these operations to be higher than the return on equity for slow-growth, regulated operations. Although, in order to remedy this problem, I decided to exclude companies that receive less than 40% of their revenues from wireline operations, which resulted in the exclusion of ALLTEL and Telephone and Data Systems (TDS). ALLTEL and TDS both receive a significant amount of their revenue from wireless operations. This reduces the number of

1 companies used in this analysis even more, but the selection of comparable companies is  
2 critical in order to arrive at a “pure play” cost of common equity, which means choosing  
3 companies that are as similar as possible to the regulated business of the subject company.  
4 Additionally, the stock prices of the technology sector in general, and the telephone sector in  
5 specific, have been much lower than the prices shortly before March 2000, and because the  
6 Comparables tend to be branching out into higher growth, non-regulated aspects of the  
7 telecommunications industry, the Comparables’ stock prices may be more depressed than the  
8 stock price of a telecommunications company that tends to do more business in conservative,  
9 regulated operations.

10 Q. How do you propose to address some of the concerns you noted in your  
11 previous answer?

12 A. Because of the above concerns, I decided to use the 2001 Staff study, “An  
13 Analysis of Generic Cost of Equity for Small Telephone Companies in Missouri” by  
14 David Murray, the 2002 Staff study, “An Analysis of Generic Cost of Equity for Small  
15 Telephone Companies in Missouri” by David Murray, as well as the 2004 study by  
16 David Murray and Matt Barnes (Schedules 1 through 13), to calculate averages of all three  
17 generic telephone studies to arrive at a range of cost of equity estimates for small telephone  
18 companies with various capital structures. The use of the average will help alleviate the  
19 concerns about the reduction of the number of Comparables. It will also help alleviate the  
20 concern about the Comparables becoming more heavily invested in non-regulated aspects of  
21 the telecommunications industry.

22 Q. Did you estimate a specific point cost of equity for the cost of equity for small  
23 telephone companies that may be subject to this analysis or did you use a range?

1           A.     I used a range. Realizing that small telephone companies in Missouri with  
2 fewer than 10,000 access lines have varying capital structures, I felt that a financially sound  
3 methodology was needed to take into account the concept that the return on equity should be  
4 lower for a firm financed with 100 percent equity versus a company that is much more  
5 heavily weighted in debt. From a conceptual perspective, financial theory indicates that a  
6 company with debt has financial leverage and therefore, a certain level of financial risk. If a  
7 company is financed with 100 percent equity, it doesn't have any financial leverage and  
8 hence, it doesn't have any financial risk. Financial theory states that if financial risk exists,  
9 investors will expect a greater return on equity for them to incur that risk. Conversely, if a  
10 company does not have debt, it does not have financial leverage or resulting financial risk  
11 and therefore, investors will expect a lesser rate of return.

12           Q.     How do you propose to make adjustments to the proxy groups' cost of  
13 common equity for the last three studies to take into consideration capital structure?

14           A.     I used a methodology that modifies the beta used in the CAPM equation to  
15 remove the risk associated with financial leverage from the beta used in the model. This is  
16 commonly referred to as unlevering the beta as explained in Roger A. Morin's book,  
17 "Regulatory Finance; Utilities Cost of Capital," on pages 348-352. The equation is as  
18 follows:

$$\beta_L = \beta_U [1 + (1 - T)D/E]$$

20 where  $\beta_L$  is the observed levered beta,  $\beta_U$  is the unlevered beta of the company with no debt  
21 in the capital structure, D/E is the ratio of debt to equity, and T is the corporate income tax  
22 rate. This can be algebraically solved to determine unlevered beta:

$$\beta_U = \beta_L / [1 + (1 - T)D/E]$$

1 The objective in determining the unlevered beta is to determine what the beta would be for a  
2 company when financial leverage and resulting financial risk is removed. This unlevered  
3 beta would then be used in the CAPM to determine the estimated cost of equity for a firm  
4 that is financed without debt. If a firm does not have any debt, then there isn't any financial  
5 risk to the shareholders because all earnings can accrue to the shareholders instead of having  
6 to pay debt service to the debtholders. Therefore, a firm with debt inherently has more  
7 financial risk, and will require a higher return on equity versus a lower return on equity for a  
8 firm without debt. Additionally, a firm with fixed interest rate debt in its capital structure  
9 will have a fixed interest expense. If revenues decrease for that company, it will have a more  
10 dramatic impact on the return on equity for its shareholders because the company still has to  
11 pay the fixed debt service expense to the debtholders. Alternatively, a company that doesn't  
12 have debt will not have to pay this expense. Therefore, the return on equity for a firm with  
13 debt in its financial structure will have greater volatility, causing its beta to be higher than a  
14 comparable company with less debt in its capital structure. As a result, when one unlevers  
15 the beta of a company with a higher degree of financial leverage, it will result in a larger  
16 decrease in the beta than if the company had less financial leverage.

17 Q. Using the unlevered beta approach, what was the cost of common equity for a  
18 company without any debt in its financial structure?

19 A. I subtracted the unlevered CAPM results (column 6) from the levered CAPM  
20 results (column 5) to arrive at an average unlevered adjustment (see Schedules 14,  
21 15 and 16). In Schedule 17, I subtracted each respective unlevered adjustment from the  
22 corresponding levered cost of equity recommended in each of the three studies used. I then  
23 averaged these unlevered cost of common equity results to arrive at my recommended

1 unlevered 9.47 percent cost of common equity, which can be used for a firm that is  
2 capitalized with 100 percent equity.

3 Q. Did you estimate a cost of common equity for a company that is highly  
4 levered? If so, how did you estimate this cost of common equity?

5 A. Yes I did. I reviewed the 2004, 2002 and 2001 telephone studies to determine  
6 the highest cost of equity for each study. Because the overall recommended returns on equity  
7 for the three studies were based on a weighted average of the discounted cash flow method,  
8 the risk premium method and the CAPM method, I calculated the weighted average costs of  
9 equity for each company in all three studies to determine the highest cost of equity in each  
10 study. As shown in Schedule 18, the average of the highest cost of equity from each study is  
11 13.53 percent. This was determined to be the highest cost of equity that may be allowed for a  
12 highly levered firm.

13 Q. Did you develop a range based on the unlevered cost of equity of 9.47 percent  
14 and the average of the high costs of equity of 13.53 percent?

15 A. Yes. I used the 9.47 percent cost of equity as the low end of the range for the  
16 recommended cost of equity for a company financed with 100 percent equity. I used the  
17 13.53 percent cost of equity as the high end of the range for the recommended cost of equity  
18 for a company financed with 100 percent debt. Companies with capital structures that fall in  
19 between 100 percent equity and 100 percent debt would have an estimated cost of equity  
20 somewhere within this range.

21 Q. The methodology used in this study appears to be different than what has been  
22 used in cases involving electric, water and gas utilities. Is this technique appropriate for  
23 other types of utilities?

1           A.     I don't believe it is. Rate cases that involve electric, water and gas utilities  
2     tend to involve larger companies that are publicly traded. The Financial Analysis  
3     Department has consistently applied the DCF model in these cases because information is  
4     available to compute the cost of equity for that specific company. The telephone company  
5     involved in this case is not publicly traded, so the cost of equity for this company is not  
6     directly observable through the use of the DCF model. The comparable company approach  
7     is the customary approach to use when one has a company that is not publicly traded. In this  
8     case, using this approach without modification was not appropriate because of capital  
9     structure issues and because of the possible differences between regulated, potentially low-  
10    growth business ventures and non-regulated, potentially high-growth business ventures.

11    **Rate of Return for Fidelity Telephone Company**

12           Q.     Please explain how the returns developed for each capital component are used  
13    in the ratemaking approach you have adopted to be applied to Fidelity Telephone Company's  
14    telephone operations.

15           A.     The cost of service ratemaking method was adopted in this case. This  
16    approach develops the public utility's revenue requirement. The cost of service (revenue  
17    requirement) is based on the following components: operation costs, rate base and a return  
18    allowed on the rate base.

19           It is my responsibility to calculate and recommend a rate of return that should be  
20    authorized on the telephone utility rate base for Fidelity Telephone Company. Under the cost  
21    of service ratemaking approach, a weighted cost of capital of 9.37 percent was developed for  
22    Fidelity Telephone Company's telephone operations (see Schedule 19). This rate was  
23    calculated by applying an embedded cost of long-term debt and preferred stock of

Direct Testimony of  
David Murray

1 5.38 percent and a return on common equity of 10.12 percent selected from the previously  
2 mentioned range to a capital structure consisting of 84.10 percent long-term debt and  
3 preferred stock and 15.90 percent common equity. The 10.12 percent was determined by  
4 taking the difference between the high end of the range (13.53%) and the low end of the  
5 range (9.47%), which is 4.06 percent, times the amount of debt in Fidelity Telephone  
6 Company's capital structure (15.90%), to arrive at an adjustment of 65 basis points to the low  
7 end of the range. The addition of the 65 basis points to the 9.47 percent low end results in a  
8 recommended cost of common equity of 10.12 percent.

9 Through my analysis, I believe that I have developed a fair and reasonable return that,  
10 when applied to Fidelity Telephone Company's utility rate base, will allow Fidelity  
11 Telephone Company the opportunity to earn the revenue requirement developed in this case.

12 Q. Does this conclude your prepared direct testimony?

13 A. Yes, it does.

FIDELITY TELEPHONE COMPANY  
CASE NO. IR-2004-0272

**AN ANALYSIS OF THE COST OF CAPITAL  
FOR FIDELITY TELEPHONE COMPANY  
CASE NO. IR-2004-0272**

BY

DAVID MURRAY

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

March 2004

## List of Schedules

Schedule Number	Description of Schedule
1	Criteria for Selecting Local Exchange Industry Companies
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# Small Telephone Company Earnings Investigation

## Criteria for Selecting Local Exchange Industry Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(5)
	Stock Publicly Traded	Information Printed In Value Line	11 Years of DPS & EPS Information	Debt to Total Capital < 62%	LEC (Includes RBOC's and RLEC's, but not CLECS)*	Wireline/Landline Operations Revenue >40%	Comparable Company Met All Criteria
<b>Telecommunication Companies</b>							
1 ALLTEL Corporation	Yes	Yes	Yes	Yes	Yes	No	
2 Atlantic Tele-Network	Yes	Yes	No				
3 BellSouth Corporation	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4 CenturyTel Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5 Commonwealth Telephone Enterprises, Inc.	Yes	Yes	No				
6 Covista Communications, Inc.	Yes	Yes	No				
7 Dycorn Industries, Inc.	Yes	Yes	No				
8 General Communication 'A'	Yes	Yes	No				
9 North Pittsburgh Sys Inc.	Yes	Yes	No				
10 SBC Communications, Inc.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11 Sprint Corporation	Yes	Yes	No				
12 Telephone & Data	Yes	Yes	Yes	Yes	Yes	No	
13 Verizon Communications	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14 Vicom Incorporation	Yes	Yes	No				

Sources: The Value Line Investment Survey: Summary & Index and Ratings & Reports, October 3, 2003.

\* LEC - Local Exchange Carrier  
RBOC - Regional Bell Operating Company  
RLEC - Rural Local Exchange Carrier

### Four Telecommunications Companies

<b>Number</b>	<b>Ticker Symbol</b>	<b>Company Name</b>
1	BLS	BellSouth Corporation
2	CTL	CenturyTel Inc.
3	SBC	SBC Communications, Inc.
4	VZ	Verizon Communications

Source: Value Line Investment Survey: Ratings & Reports, October 3, 2003.

**Interest Coverage, Common Equity Ratio, and Return on Common Equity  
for the Four Telecommunications Companies**

<b>Number</b>	<b>Company Name</b>	<b>Times Interest Earned 6/30/2003</b>		<b>Common Equity Ratio (2002)</b>	<b>Return on Common Equity (2002)</b>
1	BellSouth Corporation	5.00	x	59.00%	12.00%
2	CenturyTel Inc.	3.40	* x	46.00%	10.50%
3	SBC Communications, Inc.	7.50	x	64.20%	21.70%
4	Verizon Communications	5.10	x	32.10%	25.60%
	<b>Average</b>	<b>5.25</b>	<b>x</b>	<b>50.33%</b>	<b>17.45%</b>

Source: The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

\* Estimated figure

**BellSouth Corporation**

**Dividends Per Share, Earnings Per Share & Book Value  
Per Share Growth Rates**

<u>Year</u>	<u>Dividends Per Share</u>	<u>Earnings Per Share</u>	<u>Book Value Per Share</u>
1992	0.69	0.85	6.99
1993	0.69	0.90	6.80
1994	0.69	1.05	7.24
1995	0.71	1.12	5.95
1996	0.72	1.27	6.68
1997	0.72	1.41	7.64
1998	0.73	1.65	8.26
1999	0.76	1.98	7.87
2000	0.76	2.18	9.03
2001	0.76	2.10	9.90
2002	0.79	1.13	9.51

**Annual Compound Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992 - 2002	<b>1.36%</b>	<b>2.89%</b>	<b>3.13%</b>
1997 - 2002	<b>1.87%</b>	<b>-4.33%</b>	<b>4.48%</b>

**Geometric Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992 - 2002	<b>1.36%</b>	<b>2.89%</b>	<b>3.13%</b>
1997 - 2002	<b>1.87%</b>	<b>-4.33%</b>	<b>4.48%</b>

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
<b>Average of Historical Growth Rates:</b>	<b>1.62%</b>	<b>-0.72%</b>	<b>3.80%</b>
<b>Standard Deviation:</b>	<b>0.26%</b>	<b>3.61%</b>	<b>0.67%</b>

Source: The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

**CenturyTel Inc.**

**Dividends Per Share, Earnings Per Share & Book Value  
Per Share Growth Rates**

<u>Year</u>	<u>Dividends Per Share</u>	<u>Earnings Per Share</u>	<u>Book Value Per Share</u>
1992	0.13	0.53	3.50
1993	0.14	0.58	4.45
1994	0.14	0.73	5.38
1995	0.15	0.85	6.64
1996	0.16	0.95	7.56
1997	0.16	1.09	9.46
1998	0.17	1.42	11.03
1999	0.18	1.65	13.15
2000	0.19	1.55	14.39
2001	0.20	1.40	16.49
2002	0.21	2.27	21.55

**Annual Compound Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>4.91%</b>	<b>15.66%</b>	<b>19.93%</b>
1997-2002	<b>5.59%</b>	<b>15.80%</b>	<b>17.90%</b>

**Geometric Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>4.91%</b>	<b>15.66%</b>	<b>19.03%</b>
1997-2002	<b>5.57%</b>	<b>15.80%</b>	<b>16.82%</b>

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
<b>Average of Historical Growth Rates:</b>	<b>5.25%</b>	<b>15.73%</b>	<b>18.42%</b>
<b>Standard Deviation:</b>	<b>0.33%</b>	<b>0.07%</b>	<b>1.17%</b>

Source: The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

**SBC Communications, Inc.**

**Dividends Per Share, Earnings Per Share & Book Value  
Per Share Growth Rates**

<u>Year</u>	<u>Dividends Per Share</u>	<u>Earnings Per Share</u>	<u>Book Value Per Share</u>
1992	0.73	1.09	7.76
1993	0.76	1.20	6.34
1994	0.79	1.37	6.86
1995	0.83	1.55	5.13
1996	0.86	1.73	5.70
1997	0.90	1.84	5.38
1998	0.94	2.08	6.52
1999	0.97	2.15	7.87
2000	1.01	2.26	9.00
2001	1.02	2.35	9.69
2002	1.07	2.16	10.01

**Annual Compound Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>3.90%</b>	<b>7.08%</b>	<b>2.58%</b>
1997-2002	<b>3.52%</b>	<b>3.26%</b>	<b>13.22%</b>

**Geometric Growth Rates**

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>3.63%</b>	<b>7.08%</b>	<b>2.58%</b>
1997-2002	<b>3.09%</b>	<b>3.26%</b>	<b>10.98%</b>

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
<b>Average of Historical Growth Rates:</b>	<b>3.53%</b>	<b>5.17%</b>	<b>7.34%</b>
<b>Standard Deviation:</b>	<b>0.29%</b>	<b>1.91%</b>	<b>4.83%</b>

Source: The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

## Verizon Communications

### Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates

<u>Year</u>	<u>Dividends Per Share</u>	<u>Earnings Per Share</u>	<u>Book Value Per Share</u>
1992	1.30	1.62	9.00
1993	1.34	1.70	9.43
1994	1.38	1.77	6.97
1995	1.40	1.94	7.63
1996	1.43	1.98	8.48
1997	1.49	2.48	8.24
1998	1.54	2.72	8.39
1999	1.54	3.01	10.24
2000	1.54	2.92	12.79
2001	1.54	3.00	11.98
2002	1.54	3.05	11.88

### Annual Compound Growth Rates

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>1.71%</b>	<b>6.53%</b>	<b>2.82%</b>
1997-2002	<b>0.66%</b>	<b>4.22%</b>	<b>7.59%</b>

### Geometric Growth Rates

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
1992-2002	<b>1.71%</b>	<b>6.53%</b>	<b>2.82%</b>
1997-2002	<b>0.66%</b>	<b>4.22%</b>	<b>7.59%</b>

	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>
<b>Average of Historical Growth Rates:</b>	<b>1.19%</b>	<b>5.38%</b>	<b>5.20%</b>
<b>Standard Deviation:</b>	<b>0.52%</b>	<b>1.15%</b>	<b>2.39%</b>

Source: The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

Small Telephone Company Earnings Investigation

**Expected Dividends Per Share, Earnings Per Share, & Return On Common Equity  
for the Four Telecommunications Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Company Name</u>	<u>2003 Projected DPS</u>	<u>2004 Projected DPS</u>	<u>Expected DPS</u>	<u>2003 Projected EPS</u>	<u>2004 Projected EPS</u>	<u>Expected EPS</u>	<u>2003 Projected ROE</u>	<u>2004 Projected ROE</u>	<u>Expected ROE</u>
BellSouth Corporation	\$0.90	\$0.95	<b>\$0.93</b>	\$2.05	\$2.10	<b>\$2.08</b>	18.50%	17.00%	<b>17.75%</b>
CenturyTel Inc.	\$0.22	\$0.24	<b>\$0.23</b>	\$2.30	\$2.45	<b>\$2.38</b>	9.50%	9.50%	<b>9.50%</b>
SBC Communications, Inc.	\$1.27	\$1.15	<b>\$1.21</b>	\$1.65	\$1.60	<b>\$1.63</b>	16.00%	15.00%	<b>15.50%</b>
Verizon Communications	\$1.54	\$1.60	<b>\$1.57</b>	\$2.58	\$2.30	<b>\$2.44</b>	17.50%	14.50%	<b>16.00%</b>

Notes:      Column 3 = [(Column 1 + Column 2) / 2]  
                  Column 6 = [(Column 4 + Column 5) / 2]  
                  Column 9 = [(Column 7 + Column 8) / 2]

Sources:      The Value Line Investment Survey: Ratings and Reports, October 3, 2003.

# Small Telephone Company Earnings Investigation

## Sustainable Growth Rates for the Four Telecommunications Companies

	(1)	(2)	(3)	(4)	(5)
Company Name	Expected DPS	Expected EPS	Expected ROE	Retention Rate	Sustainable Growth
BellSouth Corporation	\$0.93	\$2.08	17.75%	55.42%	9.84%
CenturyTel Inc.	\$0.23	\$2.38	9.50%	90.32%	8.58%
SBC Communications, Inc.	\$1.21	\$1.63	15.50%	25.54%	3.96%
Verizon Communications	\$1.57	\$2.44	16.00%	35.66%	5.70%
Average					7.02%

Notes: Column 4 =  $[1 - (\text{Column 1} / \text{Column 2})]$   
Column 5 =  $[\text{Column 3} * \text{Column 4}]$

Sources: Reilly, Frank K. and Brown, Keith C., Investment Analysis and Portfolio Management: Fifth Edition,  
The Dryden Press, Fort Worth, 1997, pp. 406-408.  
Column 1 = Schedule 5.  
Column 2 = Schedule 5.  
Column 3 = Schedule 5.

# Small Telephone Company Earnings Investigation

## Historical, Sustainable, & Projected Growth Rates for the Four Telecommunications Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Company Name</b>	<b>Historical Growth Rate (DPS, EPS, &amp; BVPS)</b>	<b>Sustainable Growth</b>	<b>Projected 5 Year Growth IBES (mean)</b>	<b>Projected 5 Year EPS Growth (S&amp;P)</b>	<b>Projected 3-5 Year EPS Growth (Value Line)</b>	<b>Average Projected Growth</b>	<b>Average Historical &amp; Projected Growth</b>
BellSouth Corporation	1.57%	9.84%	2.00%	3.00%	6.00%	5.21%	<b>3.39%</b>
CenturyTel Inc.	13.13%	8.58%	3.90%	4.00%	12.00%	7.12%	<b>10.13%</b>
SBC Communications, Inc.	5.35%	3.96%	1.50%	1.00%	-3.50%	0.74%	<b>3.04%</b>
Verizon Communications	3.92%	5.70%	1.00%	1.00%	NMF	2.57%	<b>3.25%</b>
<b>Average</b>	<b>5.99%</b>	<b>7.02%</b>	<b>2.10%</b>	<b>2.25%</b>	<b>3.63%</b>	<b>3.91%</b>	<b>4.95%</b>

Notes : Column 6 = [(Sum of Columns 2 through 5) / 4]  
Column 7 = [(Sum of Columns 1 and 6) / 2]  
NMF = Not Meaningful

Sources: Column 1 = Average Historical DPS, EPS, & BVPS Growth Rates from Schedule 4.  
Column 2 = Schedule 6.  
Column 3 = I/B/E/S Inc.'s Institutional Brokers Estimate System (Utility Sector  
Five Year Growth Rate-Company Data by Industry), January 15, 2004.  
Column 4 = Standard & Poor's Corporation's Earnings Guide, January 2004.  
Column 5 = The Value Line Investment Survey: Ratings and Reports, October 3, 2003.

Small Telephone Company Earnings Investigation

**Average High/Low Stock Price for September 2003 through December 2003.  
for the Four Telecommunications Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	September 2003		October 2003		November 2003		December 2003		
<b>Company Name</b>	<b>High Stock Price</b>	<b>Low Stock Price</b>	<b>High Stock Price</b>	<b>Low Stock Price</b>	<b>High Stock Price</b>	<b>Low Stock Price</b>	<b>High Stock Price</b>	<b>Low Stock Price</b>	<b>Average High/Low Stock Price</b>
BellSouth Corporation	\$26.160	\$23.150	\$26.420	\$22.190	\$26.640	\$25.010	\$28.370	\$26.000	<b>\$25.493</b>
CenturyTel Inc.	\$35.850	\$33.370	\$36.760	\$33.850	\$35.850	\$31.300	\$33.080	\$30.090	<b>\$33.769</b>
SBC Communications, Inc.	\$24.060	\$21.650	\$24.000	\$21.160	\$24.250	\$22.830	\$26.150	\$22.950	<b>\$23.381</b>
Verizon Communications	\$37.000	\$32.050	\$34.250	\$31.100	\$33.840	\$31.800	\$35.250	\$32.130	<b>\$33.428</b>

Notes: Column 9 = [(Sum of Columns 1 through 8) / 8]

Sources: S&P Stock Guides: October 2003, November 2003, December 2003, January 2004.

Small Telephone Company Earnings Investigation

**Discounted Cash Flow (DCF) Cost of Equity Estimates  
for the Four Telecommunications Companies**

	(1)	(2)	(3)	(4)	(5)
<b>Company Name</b>	<b>Expected Dividend</b>	<b>Average High/Low Stock Price</b>	<b>Projected Dividend Yield</b>	<b>Average Growth Rate</b>	<b>Cost of Common Equity</b>
BellSouth Corporation	\$0.93	\$25.493	3.63%	3.39%	7.02%
CenturyTel Inc.	\$0.23	\$33.769	0.68%	10.13%	10.81%
SBC Communications, Inc.	\$1.21	\$23.381	5.18%	3.04%	8.22%
Verizon Communications	\$1.57	\$33.428	4.70%	3.25%	7.95%
			<b>3.55%</b>	<b>4.95%</b>	<b>8.50%</b>

Notes: Column 3 = [Column 1 / Column 2]  
Column 5 = [Column 3 + Column 4]

Sources: Column 1 = The Value Line Investment Survey: Ratings and Reports, October 3, 2003.  
Average of 2003 estimated DPS and 2004 estimated DPS  
Column 2 = Schedule 8.  
Column 4 = Schedule 7.

# Small Telephone Company Earnings Investigation

## Average Risk Premium Above the Yields of 30-Year U.S. Treasury Bonds for BellSouth Corporation's Expected Returns on Common Equity

Mo/Year	BellSouth's Expected ROE	30-Year U.S. Treasury Bond Yields	BellSouth's Risk Premium	Mo/Year	BellSouth's Expected ROE	30-Year U.S. Treasury Bond Yields	BellSouth's Risk Premium
Jan 1994	13.50%	6.29%	7.21%	Jan 1999	22.50%	5.16%	17.34%
Feb	13.50%	6.49%	7.01%	Feb	22.50%	5.37%	17.13%
Mar	13.50%	6.91%	6.59%	Mar	22.50%	5.58%	16.92%
Apr	15.00%	7.27%	7.73%	Apr	23.50%	5.55%	17.95%
May	15.00%	7.41%	7.59%	May	23.50%	5.81%	17.69%
Jun	15.00%	7.40%	7.60%	June	23.50%	6.04%	17.46%
Jul	15.00%	7.58%	7.42%	July	23.50%	5.98%	17.52%
Aug	15.00%	7.49%	7.51%	Aug	23.50%	6.07%	17.43%
Sep	15.00%	7.71%	7.29%	Sept	23.50%	6.07%	17.43%
Oct	14.50%	7.94%	6.56%	Oct	24.50%	6.26%	18.24%
Nov	14.50%	8.08%	6.42%	Nov	24.50%	6.15%	18.35%
Dec	14.50%	7.87%	6.63%	Dec	24.50%	6.35%	18.15%
Jan 1995	15.00%	7.85%	7.15%	Jan 2000	26.00%	6.63%	19.37%
Feb	15.00%	7.61%	7.39%	Feb	26.00%	6.23%	19.77%
Mar	15.00%	7.45%	7.55%	March	26.00%	6.05%	19.95%
Apr	14.50%	7.36%	7.14%	Apr	26.00%	5.85%	20.15%
May	14.50%	6.95%	7.55%	May	26.00%	6.15%	19.85%
Jun	14.50%	6.57%	7.93%	June	26.00%	5.93%	20.07%
Jul	17.50%	6.72%	10.78%	July	23.00%	5.85%	17.15%
Aug	17.50%	6.86%	10.64%	Aug	23.00%	5.72%	17.28%
Sep	17.50%	6.55%	10.95%	Sept	23.00%	5.83%	17.17%
Oct	18.00%	6.37%	11.63%	Oct	23.50%	5.80%	17.70%
Nov	18.00%	6.26%	11.74%	Nov	23.50%	5.78%	17.72%
Dec	18.00%	6.06%	11.94%	Dec	23.50%	5.49%	18.01%
Jan 1996	19.00%	6.05%	12.95%	Jan 2001	23.00%	5.54%	17.46%
Feb	19.00%	6.24%	12.76%	Feb	23.00%	5.45%	17.55%
Mar	19.00%	6.60%	12.40%	March	23.00%	5.34%	17.66%
Apr	18.50%	6.79%	11.71%	Apr	23.00%	5.65%	17.35%
May	18.50%	6.93%	11.57%	May	23.00%	5.78%	17.22%
Jun	18.50%	7.06%	11.44%	June	23.00%	5.67%	17.33%
Jul	19.00%	7.03%	11.97%	July	21.50%	5.61%	15.89%
Aug	19.00%	6.84%	12.16%	Aug	21.50%	5.48%	16.02%
Sep	19.00%	7.03%	11.97%	Sept	21.50%	5.48%	16.02%
Oct	19.00%	6.81%	12.19%	Oct	21.00%	5.32%	15.68%
Nov	19.00%	6.48%	12.52%	Nov	21.00%	5.12%	15.88%
Dec	19.00%	6.55%	12.45%	Dec	21.00%	5.48%	15.52%
Jan 1997	19.00%	6.83%	12.17%	Jan 2002	21.50%	5.45%	16.05%
Feb	19.00%	6.69%	12.31%	Feb	21.50%	5.40%	16.10%
Mar	19.00%	6.93%	12.07%	Mar	21.50%	5.71%	15.79%
Apr	19.00%	7.09%	11.91%	Apr	21.50%	5.67%	15.83%
May	19.00%	6.94%	12.06%	May	21.50%	5.64%	15.86%
Jun	19.00%	6.77%	12.23%	Jun	21.50%	5.52%	15.98%
Jul	19.00%	6.51%	12.49%	Jul	21.00%	5.38%	15.62%
Aug	19.00%	6.58%	12.42%	Aug	21.00%	5.08%	15.92%
Sep	19.00%	6.50%	12.50%	Sep	21.00%	4.76%	16.24%
Oct	19.00%	6.33%	12.67%	Oct	17.50%	4.93%	12.57%
Nov	19.00%	6.11%	12.89%	Nov	17.50%	4.95%	12.55%
Dec	19.00%	5.99%	13.01%	Dec	17.50%	4.92%	12.58%
Jan 1998	19.00%	5.81%	13.19%	Jan 2003	16.50%	4.94%	11.56%
Feb	19.00%	5.89%	13.11%	Feb	16.50%	4.81%	11.69%
Mar	19.00%	5.95%	13.05%	Mar	16.50%	4.80%	11.70%
Apr	19.50%	5.92%	13.58%	Apr	18.00%	4.90%	13.10%
May	19.50%	5.93%	13.57%	May	18.00%	4.53%	13.47%
Jun	19.50%	5.70%	13.80%	Jun	18.00%	4.37%	13.63%
Jul	19.00%	5.68%	13.32%	Jul	18.00%	4.93%	13.07%
Aug	19.00%	5.54%	13.46%	Aug	18.00%	5.30%	12.70%
Sep	19.00%	5.20%	13.80%	Sep	18.00%	5.14%	12.86%
Oct	20.00%	5.01%	14.99%	Oct	18.50%	5.16%	13.34%
Nov	20.00%	5.25%	14.75%	Nov	18.50%	5.13%	13.37%
Dec	20.00%	5.06%	14.94%	Dec	18.50%	5.08%	13.42%

### Summary Information (January 1994 - December 2003)

Average Risk Premium:	13.57%
High Risk Premium:	20.15%
Low Risk Premium:	6.42%

Sources: The Value Line Investment Survey: Ratings & Reports for each quarter.  
 St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/gs30>  
 Yahoo Finance at:  
<http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETYX&d=1y>

# Small Telephone Company Earnings Investigation

## Average Risk Premium Above the Yields of 30-Year U.S. Treasury Bonds for CenturyTel Inc.'s Expected Returns on Common Equity

Mo/Year	Century Tel's Expected ROE	30-Year U.S. Treasury Bond Yields	Century Tel's Risk Premium	Mo/Year	Century Tel's Expected ROE	30-Year U.S. Treasury Bond Yields	Century Tel's Risk Premium
Jan 1994	15.00%	6.29%	8.71%	Jan 1999	13.50%	5.16%	8.34%
Feb	15.00%	6.49%	8.51%	Feb	13.50%	5.37%	8.13%
Mar	15.00%	6.91%	8.09%	Mar	13.50%	5.58%	7.92%
Apr	12.50%	7.27%	5.23%	Apr	13.50%	5.55%	7.95%
May	12.50%	7.41%	5.09%	May	13.50%	5.81%	7.69%
Jun	12.50%	7.40%	5.10%	June	13.50%	6.04%	7.46%
Jul	14.00%	7.58%	6.42%	July	14.00%	5.98%	8.02%
Aug	14.00%	7.49%	6.51%	Aug	14.00%	6.07%	7.93%
Sep	14.00%	7.71%	6.29%	Sept	14.00%	6.07%	7.93%
Oct	13.50%	7.94%	5.56%	Oct	13.50%	6.26%	7.24%
Nov	13.50%	8.08%	5.42%	Nov	13.50%	6.15%	7.35%
Dec	13.50%	7.87%	5.63%	Dec	13.50%	6.35%	7.15%
Jan 1995	15.50%	7.85%	7.65%	Jan 2000	13.50%	6.63%	6.87%
Feb	15.50%	7.61%	7.89%	Feb	13.50%	6.23%	7.27%
Mar	15.50%	7.45%	8.05%	March	13.50%	6.05%	7.45%
Apr	14.50%	7.36%	7.14%	Apr	12.50%	5.85%	6.65%
May	14.50%	6.95%	7.55%	May	12.50%	6.15%	6.35%
Jun	14.50%	6.57%	7.93%	June	12.50%	5.93%	6.57%
Jul	15.00%	6.72%	8.28%	July	12.50%	5.85%	6.65%
Aug	15.00%	6.86%	8.14%	Aug	12.50%	5.72%	6.78%
Sep	15.00%	6.55%	8.45%	Sept	12.50%	5.83%	6.67%
Oct	14.50%	6.37%	8.13%	Oct	11.00%	5.80%	5.20%
Nov	14.50%	6.26%	8.24%	Nov	11.00%	5.78%	5.22%
Dec	14.50%	6.06%	8.44%	Dec	11.00%	5.49%	5.51%
Jan 1996	15.50%	6.05%	9.45%	Jan 2001	11.50%	5.54%	5.96%
Feb	15.50%	6.24%	9.26%	Feb	11.50%	5.45%	6.05%
Mar	15.50%	6.60%	8.90%	March	11.50%	5.34%	6.16%
Apr	13.00%	6.79%	6.21%	Apr	11.50%	5.65%	5.85%
May	13.00%	6.93%	6.07%	May	11.50%	5.78%	5.72%
Jun	13.00%	7.06%	5.94%	June	11.50%	5.67%	5.83%
Jul	13.50%	7.03%	6.47%	July	11.50%	5.61%	5.89%
Aug	13.50%	6.84%	6.66%	Aug	11.50%	5.48%	6.02%
Sep	13.50%	7.03%	6.47%	Sept	11.50%	5.48%	6.02%
Oct	13.50%	6.81%	6.69%	Oct	11.50%	5.32%	6.18%
Nov	13.50%	6.48%	7.02%	Nov	11.50%	5.12%	6.38%
Dec	13.50%	6.55%	6.95%	Dec	11.50%	5.48%	6.02%
Jan 1997	13.50%	6.83%	6.67%	Jan 2002	11.50%	5.45%	6.05%
Feb	13.50%	6.69%	6.81%	Feb	11.50%	5.40%	6.10%
Mar	13.50%	6.93%	6.57%	Mar	11.50%	5.71%	5.79%
Apr	13.00%	7.09%	5.91%	Apr	11.50%	5.67%	5.83%
May	13.00%	6.94%	6.06%	May	11.50%	5.64%	5.86%
Jun	13.00%	6.77%	6.23%	Jun	11.50%	5.52%	5.98%
Jul	13.00%	6.51%	6.49%	Jul	11.50%	5.38%	6.12%
Aug	13.00%	6.58%	6.42%	Aug	11.50%	5.08%	6.42%
Sep	13.00%	6.50%	6.50%	Sep	11.50%	4.76%	6.74%
Oct	13.00%	6.33%	6.67%	Oct	11.50%	4.93%	6.57%
Nov	13.00%	6.11%	6.89%	Nov	11.50%	4.95%	6.55%
Dec	13.00%	5.99%	7.01%	Dec	11.50%	4.92%	6.58%
Jan 1998	13.50%	5.81%	7.69%	Jan 2003	11.50%	4.94%	6.56%
Feb	13.50%	5.89%	7.61%	Feb	11.50%	4.81%	6.69%
Mar	13.50%	5.95%	7.55%	Mar	11.50%	4.80%	6.70%
Apr	13.00%	5.92%	7.08%	Apr	10.00%	4.90%	5.10%
May	13.00%	5.93%	7.07%	May	10.00%	4.53%	5.47%
Jun	13.00%	5.70%	7.30%	Jun	10.00%	4.37%	5.63%
Jul	13.00%	5.68%	7.32%	Jul	9.00%	4.93%	4.07%
Aug	13.00%	5.54%	7.46%	Aug	9.00%	5.30%	3.70%
Sep	13.00%	5.20%	7.80%	Sep	9.00%	5.14%	3.86%
Oct	12.50%	5.01%	7.49%	Oct	9.50%	5.16%	4.34%
Nov	12.50%	5.25%	7.25%	Nov	9.50%	5.13%	4.37%
Dec	12.50%	5.06%	7.44%	Dec	9.50%	5.08%	4.42%

### Summary Information (January 1994 - December 2003)

Average Risk Premium: 6.70%

High Risk Premium: 9.45%

Low Risk Premium: 3.70%

Sources: The Value Line Investment Survey: Ratings & Reports for each quarter  
St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/g3s0>  
Yahoo Finance at:  
<http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5SETYX&d=1y>

# Small Telephone Company Earnings Investigation

## Average Risk Premium Above the Yields of 30-Year U.S. Treasury Bonds for SBC Communications, Inc.'s Expected Returns on Common Equity

Mo/Year	SBC's Expected ROE	30-Year U.S. Treasury Bond Yields	SBC's Risk Premium	Mo/Year	SBC's Expected ROE	30-Year U.S. Treasury Bond Yields	SBC's Risk Premium
Jan 1994	19.50%	6.29%	13.21%	Jan 1999	29.50%	5.16%	24.34%
Feb	19.50%	6.49%	13.01%	Feb	29.50%	5.37%	24.13%
Mar	19.50%	6.91%	12.59%	Mar	29.50%	5.58%	23.92%
Apr	19.50%	7.27%	12.23%	Apr	30.00%	5.55%	24.45%
May	19.50%	7.41%	12.09%	May	30.00%	5.81%	24.19%
Jun	19.50%	7.40%	12.10%	June	30.00%	6.04%	23.96%
Jul	19.00%	7.58%	11.42%	July	30.00%	5.98%	24.02%
Aug	19.00%	7.49%	11.51%	Aug	30.00%	6.07%	23.93%
Sep	19.00%	7.71%	11.29%	Sept	30.00%	6.07%	23.93%
Oct	20.00%	7.94%	12.06%	Oct	30.00%	6.26%	23.74%
Nov	20.00%	8.08%	11.92%	Nov	30.00%	6.15%	23.85%
Dec	20.00%	7.87%	12.13%	Dec	30.00%	6.35%	23.65%
Jan 1995	20.00%	7.85%	12.15%	Jan 2000	25.00%	6.63%	18.37%
Feb	20.00%	7.61%	12.39%	Feb	25.00%	6.23%	18.77%
Mar	20.00%	7.45%	12.55%	March	25.00%	6.05%	18.95%
Apr	20.00%	7.36%	12.64%	Apr	25.50%	5.85%	19.65%
May	20.00%	6.95%	13.05%	May	25.50%	6.15%	19.35%
Jun	20.00%	6.57%	13.43%	June	25.50%	5.93%	19.57%
Jul	20.00%	6.72%	13.28%	July	25.50%	5.85%	19.65%
Aug	20.00%	6.86%	13.14%	Aug	25.50%	5.72%	19.78%
Sep	20.00%	6.55%	13.45%	Sept	25.50%	5.83%	19.67%
Oct	29.50%	6.37%	23.13%	Oct	25.50%	5.80%	19.70%
Nov	29.50%	6.26%	23.24%	Nov	25.50%	5.78%	19.72%
Dec	29.50%	6.06%	23.44%	Dec	25.50%	5.49%	20.01%
Jan 1996	28.00%	6.05%	21.95%	Jan 2001	24.50%	5.54%	18.96%
Feb	28.00%	6.24%	21.76%	Feb	24.50%	5.45%	19.05%
Mar	28.00%	6.60%	21.40%	March	24.50%	5.34%	19.16%
Apr	29.00%	6.79%	22.21%	Apr	24.00%	5.65%	18.35%
May	29.00%	6.93%	22.07%	May	24.00%	5.78%	18.22%
Jun	29.00%	7.06%	21.94%	June	24.00%	5.67%	18.33%
Jul	29.00%	7.03%	21.97%	July	23.50%	5.61%	17.89%
Aug	29.00%	6.84%	22.16%	Aug	23.50%	5.48%	18.02%
Sep	29.00%	7.03%	21.97%	Sept	23.50%	5.48%	18.02%
Oct	29.00%	6.81%	22.19%	Oct	23.50%	5.32%	18.18%
Nov	29.00%	6.48%	22.52%	Nov	23.50%	5.12%	18.38%
Dec	29.00%	6.55%	22.45%	Dec	23.50%	5.48%	18.02%
Jan 1997	27.00%	6.83%	20.17%	Jan 2002	21.50%	5.45%	16.05%
Feb	27.00%	6.69%	20.31%	Feb	21.50%	5.40%	16.10%
Mar	27.00%	6.93%	20.07%	Mar	21.50%	5.71%	15.79%
Apr	35.50%	7.09%	28.41%	Apr	22.00%	5.67%	16.33%
May	35.50%	6.94%	28.56%	May	22.00%	5.64%	16.36%
Jun	35.50%	6.77%	28.73%	Jun	22.00%	5.52%	16.48%
Jul	30.00%	6.51%	23.49%	Jul	22.50%	5.38%	17.12%
Aug	30.00%	6.58%	23.42%	Aug	22.50%	5.08%	17.42%
Sep	30.00%	6.50%	23.50%	Sep	22.50%	4.76%	17.74%
Oct	36.50%	6.33%	30.17%	Oct	22.50%	4.93%	17.57%
Nov	36.50%	6.11%	30.39%	Nov	22.50%	4.95%	17.55%
Dec	36.50%	5.99%	30.51%	Dec	22.50%	4.92%	17.58%
Jan 1998	34.00%	5.81%	28.19%	Jan 2003	21.50%	4.94%	16.56%
Feb	34.00%	5.89%	28.11%	Feb	21.50%	4.81%	16.69%
Mar	34.00%	5.95%	28.05%	Mar	21.50%	4.80%	16.70%
Apr	31.50%	5.92%	25.58%	Apr	18.00%	4.90%	13.10%
May	31.50%	5.93%	25.57%	May	18.00%	4.53%	13.47%
Jun	31.50%	5.70%	25.80%	Jun	18.00%	4.37%	13.63%
Jul	31.50%	5.68%	25.82%	Jul	16.00%	4.93%	11.07%
Aug	31.50%	5.54%	25.96%	Aug	16.00%	5.30%	10.70%
Sep	31.50%	5.20%	26.30%	Sep	16.00%	5.14%	10.86%
Oct	32.00%	5.01%	26.99%	Oct	16.00%	5.16%	10.84%
Nov	32.00%	5.25%	26.75%	Nov	16.00%	5.13%	10.87%
Dec	32.00%	5.06%	26.94%	Dec	16.00%	5.08%	10.92%

### Summary Information (January 1994 - December 2003)

Average Risk Premium:	19.36%
High Risk Premium:	30.51%
Low Risk Premium:	10.70%

Sources: The Value Line Investment Survey: Ratings & Reports for each quarter.  
 St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/gs30>  
 Yahoo Finance at:  
<http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETYX&d=1y>

**Average Risk Premium Above the Yields of 30-Year U.S. Treasury Bonds  
for Verizon Communication's Expected Returns on Common Equity**

Mo/Year	Verizon's Expected ROE	30-Year U.S. Treasury Bond Yields	Verizon's Risk Premium	Mo/Year	Verizon's Expected ROE	30-Year U.S. Treasury Bond Yields	Verizon's Risk Premium
Jan 1994	18.50%	6.29%	12.21%	Jan 1999	24.00%	5.16%	18.84%
Feb	18.50%	6.49%	12.01%	Feb	24.00%	5.37%	18.63%
Mar	18.50%	6.91%	11.59%	Mar	24.00%	5.58%	18.42%
Apr	18.50%	7.27%	11.23%	Apr	23.00%	5.55%	17.45%
May	18.50%	7.41%	11.09%	May	23.00%	5.81%	17.19%
Jun	18.50%	7.40%	11.10%	June	23.00%	6.04%	16.96%
Jul	18.00%	7.58%	10.42%	July	30.50%	5.98%	24.52%
Aug	18.00%	7.49%	10.51%	Aug	30.50%	6.07%	24.43%
Sep	18.00%	7.71%	10.29%	Sept	30.50%	6.07%	24.43%
Oct	25.00%	7.94%	17.06%	Oct	30.50%	6.26%	24.24%
Nov	25.00%	8.08%	16.92%	Nov	30.50%	6.15%	24.35%
Dec	25.00%	7.87%	17.13%	Dec	30.50%	6.35%	24.15%
Jan 1995	24.50%	7.85%	16.65%	Jan 2000	29.00%	6.63%	22.37%
Feb	24.50%	7.61%	16.89%	Feb	29.00%	6.23%	22.77%
Mar	24.50%	7.45%	17.05%	March	29.00%	6.05%	22.95%
Apr	25.50%	7.36%	18.14%	Apr	29.00%	5.85%	23.15%
May	25.50%	6.95%	18.55%	May	29.00%	6.15%	22.85%
Jun	25.50%	6.57%	18.93%	June	29.00%	5.93%	23.07%
Jul	25.50%	6.72%	18.78%	July	29.50%	5.85%	23.55%
Aug	25.50%	6.86%	18.64%	Aug	29.50%	5.72%	23.78%
Sep	25.50%	6.55%	18.95%	Sept	29.50%	5.83%	23.67%
Oct	25.50%	6.37%	19.13%	Oct	41.50%	5.80%	35.70%
Nov	25.50%	6.26%	19.24%	Nov	41.50%	5.78%	35.72%
Dec	25.50%	6.06%	19.44%	Dec	41.50%	5.49%	36.01%
Jan 1996	25.00%	6.05%	18.95%	Jan 2001	37.50%	5.54%	31.96%
Feb	25.00%	6.24%	18.76%	Feb	37.50%	5.45%	32.05%
Mar	25.00%	6.60%	18.40%	March	37.50%	5.34%	32.16%
Apr	25.00%	6.79%	18.21%	Apr	30.00%	5.65%	32.35%
May	25.00%	6.93%	18.07%	May	30.00%	5.78%	32.22%
Jun	25.00%	7.06%	17.94%	June	30.00%	5.67%	32.33%
Jul	25.50%	7.03%	18.47%	July	22.50%	5.61%	16.89%
Aug	25.50%	6.84%	18.66%	Aug	22.50%	5.48%	17.02%
Sep	25.50%	7.03%	18.47%	Sept	22.50%	5.48%	17.02%
Oct	25.50%	6.81%	18.69%	Oct	22.00%	5.32%	16.68%
Nov	25.50%	6.48%	19.02%	Nov	22.00%	5.12%	16.88%
Dec	25.50%	6.55%	18.95%	Dec	22.00%	5.48%	16.52%
Jan 1997	25.50%	6.83%	18.67%	Jan 2002	21.50%	5.45%	16.05%
Feb	25.50%	6.69%	18.81%	Feb	21.50%	5.40%	16.10%
Mar	25.50%	6.93%	18.57%	Mar	21.50%	5.71%	15.79%
Apr	25.50%	7.09%	18.41%	Apr	21.50%	5.67%	15.83%
May	25.50%	6.94%	18.56%	May	21.50%	5.64%	15.86%
Jun	25.50%	6.77%	18.73%	Jun	21.50%	5.52%	15.98%
Jul	25.00%	6.51%	18.49%	Jul	21.50%	5.38%	16.12%
Aug	25.00%	6.58%	18.42%	Aug	21.50%	5.08%	16.42%
Sep	25.00%	6.50%	18.50%	Sep	21.50%	4.76%	16.74%
Oct	23.00%	6.33%	16.67%	Oct	22.50%	4.93%	17.57%
Nov	23.00%	6.11%	16.89%	Nov	22.50%	4.95%	17.55%
Dec	23.00%	5.99%	17.01%	Dec	22.50%	4.92%	17.58%
Jan 1998	20.50%	5.81%	14.69%	Jan 2003	20.50%	4.94%	15.56%
Feb	20.50%	5.89%	14.61%	Feb	20.50%	4.81%	15.69%
Mar	20.50%	5.95%	14.55%	Mar	20.50%	4.80%	15.70%
Apr	10.00%	5.92%	4.08%	Apr	20.50%	4.90%	15.60%
May	10.00%	5.93%	4.07%	May	20.50%	4.53%	15.97%
Jun	10.00%	5.70%	4.30%	Jun	20.50%	4.37%	16.13%
Jul	24.50%	5.68%	18.82%	Jul	21.00%	4.93%	16.07%
Aug	24.50%	5.54%	18.96%	Aug	21.00%	5.30%	15.70%
Sep	24.50%	5.20%	19.30%	Sep	21.00%	5.14%	15.86%
Oct	24.00%	5.01%	18.99%	Oct	18.50%	5.16%	13.34%
Nov	24.00%	5.25%	18.75%	Nov	18.50%	5.13%	13.37%
Dec	24.00%	5.06%	18.94%	Dec	18.50%	5.08%	13.42%

**Summary Information (January 1994 - December 2003)**

**Average Risk Premium: 18.35%**

**High Risk Premium: 36.01%**

**Low Risk Premium: 4.07%**

Sources: The Value Line Investment Survey: Ratings & Reports for each quarter.  
St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/gs30>  
Yahoo Finance at:  
<http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETYX&d=1y>

Small Telephone Company Earnings Investigation

**Risk Premium Cost of Equity Estimates  
for the Four Telecommunications Companies  
(30-Year Treasury)**

	(1)	(2)	(3)
<b>Company Name</b>	<b>January 2004 30-Year U.S. Treasury Yield</b>	<b>Equity Premium</b>	<b>Cost of Common Equity</b>
BellSouth Corporation	4.99%	13.57%	18.56%
CenturyTel Inc.	4.99%	6.70%	11.69%
SBC Communications, Inc.	4.99%	19.36%	24.35%
Verizon Communications	4.99%	18.35%	23.34%
<b>Average</b>		<b>14.49%</b>	<b>19.48%</b>

**NOTES:**

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for January 2004 which was obtained from Yahoo Finance at <http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETYS&d=1y>

Column 2 = The equity premium represents the average positive difference between the Company's expected return on common equity as reported in The Value Line Investment Survey: Ratings & Report and the average yield on 30-year U.S. Treasury Bonds from January 1994 through December 2003.  
See Schedules 10-1 through 10-4.

Column 3 = Column 1 + Column 2.

## Small Telephone Company Earnings Investigation

### Capital Asset Pricing Model (CAPM) Cost of Equity Estimates for the Four Telecommunications Companies

	(1)	(2)	(3)	(4)
Company Name	Risk Free Rate	Company's Beta	Market Risk Premium	Cost of Common Equity
BellSouth Corporation	4.99%	0.90	6.40%	10.75%
CenturyTel Inc.	4.99%	1.05	6.40%	11.71%
SBC Communications, Inc.	4.99%	1.00	6.40%	11.39%
Verizon Communications	4.99%	1.00	6.40%	11.39%
<b>Average</b>		<b>0.99</b>		<b>11.31%</b>

#### NOTES:

Column 1 = The appropriate yield is equal to the 30-Year U.S. Treasury Bond yield for January 2004 which was obtained from Yahoo Finance at <http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETEX&d=1y>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

Column 3 = The Market Risk Premium is the amount over the Risk Free Rate that is demanded by investors for holding a portfolio of equal risk to the market, and was reported by Ibbotson Associates, Inc. in Stocks, Bonds, Bills, and Inflation: 2003 Yearbook. See Table 2-1, Arithmetic Mean (large company stocks less long-term government bonds).

Column 4 = [Column 1 + (Column 2 \* Column 3)].

### Cost of Common Equity Summary

<b>Method</b>	<b>Weighting of Method</b>	<b>Cost of Common Equity Estimate</b>	<b>Weighted Cost of Common Equity Estimate</b>
DCF	75.00%	8.50%	6.37%
Risk Premium	10.00%	19.48%	1.95%
CAPM	15.00%	11.31%	1.70%
Estimated Overall Cost of Common Equity for the Four Telecommunications Companies			<b><u>10.02%</u></b>

Notes:

See Schedule 9 for DCF Estimated Cost of Common Equity.

See Schedule 11 for Risk Premium Estimated Cost of Common Equity.

See Schedule 12 for CAPM Estimated Cost of Common Equity.

# Small Telephone Company Earnings Investigation

## Capital Asset Pricing Model (CAPM) Unlevered Beta Cost of Equity Estimates for the Four Telecommunications Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Company Name	Risk Free Rate	Company's Original Beta	Company's Unlevered Beta	Market Risk Premium	Cost of Common Equity	Unlevered Cost of Common Equity	Adjustment for Leverage
BellSouth Corporation	4.99%	0.90	0.64	6.40%	10.75%	9.09%	1.66%
CenturyTel Inc.	4.99%	1.05	0.60	6.40%	11.71%	8.81%	2.90%
SBC Communications, Inc.	4.99%	1.00	0.73	6.40%	11.39%	9.65%	1.74%
Verizon Communications	4.99%	1.00	0.40	6.40%	11.39%	7.58%	3.81%
<b>Average</b>		<b>0.99</b>	<b>0.59</b>		<b>11.31%</b>	<b>8.78%</b>	<b>2.53%</b>

### NOTES:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for January 2004 which was obtained from Yahoo Finance at <http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETEX&d=1y>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by The Value Line Investment Survey: Ratings & Reports, October 3, 2003.

Column 3 =  $B_L / [1 + (1 - T)D/E]$  Where  $B_L$  = levered beta; T = tax rate as reported by Value Line; and D/E = the debt to equity ratio according to Value Line information

Column 4 = The Market Risk Premium is the amount over the Risk Free Rate that is demanded by investors for holding a portfolio of equal risk to the market, and was reported by Ibbotson Associates, Inc. in Stocks, Bonds, Bills, and Inflation: 2003 Yearbook. See Table 2-1, Arithmetic Mean (large company stocks less long-term government bonds).

Column 5 = [Column 1 + (Column 2 \* Column 4)].

Column 6 = [Column 1 + (Column 3 \* Column 4)]

Column 7 = Column 5 - Column 6

Source: The Value Line Investment Survey: Ratings and Reports, October 3, 2003.

Small Telephone Company Earnings Investigation

**Capital Asset Pricing Model (CAPM) Unlevered Beta Cost of Equity Estimates  
for the Four Telecommunications Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Company Name</b>	<b>Risk Free Rate</b>	<b>Company's Original Beta</b>	<b>Company's Unlevered Beta</b>	<b>Market Risk Premium</b>	<b>Cost of Common Equity</b>	<b>Unlevered Cost of Common Equity</b>	<b>Adjustment for Leverage</b>
BellSouth Corporation	5.67%	0.75	0.49	7.00%	10.92%	9.09%	1.83%
CenturyTel Inc.	5.67%	1.05	0.69	7.00%	13.02%	10.50%	2.52%
SBC Communications, Inc.	5.67%	0.75	0.56	7.00%	10.92%	9.58%	1.34%
Verizon Communications	5.67%	NA	NA	7.00%	NA	NA	NA
<b>Average</b>		<b>0.85</b>	<b>0.58</b>		<b>11.62%</b>	<b>9.72%</b>	<b>1.90%</b>

**NOTES:**

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for April 2002 which was obtained from Yahoo Finance at <http://www.investopedia.com/offsite.asp?URL=http://quote.yahoo.com/q?s=%5ETEX&d=1y>

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by The Value Line Investment Survey: Ratings & Reports, April 5, 2002.

Column 3 =  $B_L / [1 + (1 - T)D/E]$  Where  $B_L$  = levered beta; T = tax rate as reported by Value Line; and D/E = the debt to equity ratio according to Value Line information

Column 4 = The Market Risk Premium is the amount over the Risk Free Rate that is demanded by investors for holding a portfolio of equal risk to the market, and was reported by Ibbotson Associates, Inc. in Stocks, Bonds, Bills, and Inflation: 2002 Yearbook. See Table 2-1, Arithmetic Mean (large company stocks less long-term government bonds).

Column 5 = [Column 1 + (Column 2 \* Column 4)].

Column 6 = [Column 1 + (Column 3 \* Column 4)]

Column 7 = Column 5 - Column 6

NA = Not Available

Source: The Value Line Investment Survey: Ratings and Reports, April 5, 2002.

# Small Telephone Company Earnings Investigation

## Capital Asset Pricing Model (CAPM) Unlevered Beta Cost of Equity Estimates for the Six Telecommunications Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Company Name	Risk Free Rate	Company's Original Beta	Company's Unlevered Beta	Market Risk Premium	Cost of Common Equity	Unlevered Cost of Common Equity	Adjustment for Leverage
ALLTEL Corporation	5.67%	0.85	0.55	7.80%	12.30%	9.96%	2.34%
BellSouth Corporation	5.67%	0.85	0.61	7.80%	12.30%	10.42%	1.88%
Century Tel Inc.	5.67%	1.00	0.52	7.80%	13.47%	9.70%	3.77%
SBC Communications, Inc.	5.67%	0.85	0.63	7.80%	12.30%	10.61%	1.69%
Telephone & Data Systems	5.67%	0.80	0.55	7.80%	11.91%	9.93%	1.98%
Verizon Communications	5.67%	NA	NA	7.80%	NA	NA	NA
<b>Average</b>		<b>0.87</b>	<b>0.57</b>		<b>12.46%</b>	<b>10.12%</b>	<b>2.33%</b>

### NOTES:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for June 2001 which was obtained from the St. Louis Federal Reserve Website: <http://www.stls.frb.org/fred/data/irates/g30>.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by The Value Line Investment Survey: Ratings & Reports, April 6, 2001.

Column 3 =  $B_L / [1 + (1 - T)D/E]$  Where  $B_L$  = levered beta; T = tax rate as reported by Value Line; and D/E = the debt to equity ratio according to Value Line information

Column 4 = The Market Risk Premium is the amount over the Risk Free Rate that is demanded by investors for holding a portfolio of equal risk to the market, and was reported by Ibbotson Associates, Inc. in Stocks, Bonds, Bills, and Inflation: 2000 Yearbook. See Table 2-1, Arithmetic Mean (large company stocks less long-term government bonds).

Column 5 = [Column 1 + (Column 2 \* Column 4)].

Column 6 = [Column 1 + (Column 3 \* Column 4)]

Column 7 = Column 5 - Column 6

NA = Not Available

Source: The Value Line Investment Survey: Ratings and Reports, April 6, 2001.

# Small Telephone Company Earnings Investigation

## Unlevered Adjustment to Return on Equity Averages for the 2004, 2002, and 2001 Small Telephone Studies

	(1)	(2)	(3)
<b>Year</b>	<b>Average Levered ROE</b>	<b>Unlevered Adjustment</b>	<b>Unlevered ROE</b>
2004	10.02%	2.53%	7.49%
2002	11.68%	1.90%	9.78%
2001	13.47%	2.33%	11.14%
		<b>Average</b>	<b><u>9.47%</u></b>

### NOTES:

Column 1 = Final estimated cost of common equity from the small telephone studies

Column 2 = Column 7 from Schedules 14, 15 and 16

Column 3 = Column 1 - Column 2

Source: 2004, 2002 and 2001 small telephone studies

## Small Telephone Company Earnings Investigation

### Average High ROE's for the 2004, 2002, and 2001 Small Telephone Studies

<b>Year</b>	<b>High Levered ROE's</b>
2004	11.03%
2002	12.22%
2001	17.35%
<b>Average</b>	<b>13.53%</b>

Source: 2004, 2002 and 2001 small telephone studies

**Weighted Cost of Capital  
Fidelity Telephone Company  
as of August 31, 2003**

Capital Component	Capital Dollars	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 10.12%
Common Stock Equity	\$ 40,710,472	84.10%	-----	8.51%
Long-Term Debt*	7,698,400	15.90%	5.38%	0.86%
Total	<u><b>\$48,408,872</b></u>	<u><b>100.00%</b></u>		<u><b>9.37%</b></u>

Notes: \*Long-Term Debt includes Preferred Stock (\$88,400). The embedded cost for long-term debt also includes the embedded cost of preferred stock.