

BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

RECEIVED

JAN 19 1999

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Prescribing the Authorized  
Unitary Rate of Return for  
Interstate Services of Local  
Exchange Carriers

CC Docket No. 98-166

DIRECT CASE  
of the  
GENERAL SERVICES ADMINISTRATION

GEORGE N. BARCLAY  
Associate General Counsel  
Personal Property Division

MICHAEL J. ETTNER  
Senior Assistant General Counsel  
Personal Property Division

GENERAL SERVICES  
ADMINISTRATION  
1800 F Street, N.W., Rm. 4002  
Washington, D.C. 20405  
(202) 501-1156

Economic Consultants:

Snavely King Majoros O'Connor & Lee, Inc.  
1220 L Street, N.W., Suite 410  
Washington, D.C. 20005

January 19, 1999

No. of Copies rec'd  
List ABCDE

*OK*

## TABLE OF CONTENTS

	<u>Page</u>
I. Introduction . . . . .	1
II. Capital Structure, Cost of Debt, and Cost of Preferred Stock . . . . .	3
III. The Cost of Equity . . . . .	5
A. Surrogate Companies . . . . .	5
B. The Discounted Cash Flow Methodology . . . . .	8
1. Growth Rate . . . . .	9
2. Dividend Yield . . . . .	10
3. Flotation Costs . . . . .	12
4. Classic DCF Calculation . . . . .	13
5. Historical DCF Calculation . . . . .	14
C. Risk Premium Methodologies . . . . .	17
1. Historical Risk Premiums . . . . .	17
2. The Capital Asset Pricing Model ("CAPM") . . . . .	19
D. Cost of Equity - Summary . . . . .	21
IV. Overall Cost of Capital . . . . .	22
A. Indicated Cost of Capital . . . . .	22
B. Comparison with State Cost of Capital Findings . . . . .	22
C. GSA's Recommended Rate of Return . . . . .	23
D. Zone of Reasonableness . . . . .	24
V. Conclusion . . . . .	26
Appendix A . . . . .	List of Acronyms
Appendix B . . . . .	Local Exchange Carrier Cost of Debt, Cost of Preferred Stock Capital Structure for the Year 1997
Appendix C . . . . .	U.S. Treasury Yields, 1988-1998
Appendix D . . . . .	Summary of Cost of Cost of Capital Decisions of State Commissions

## Summary

GSA supports the Commission's initiation of this proceeding as necessary to revise the rate of return for the 1300 ILECs not subject to price cap regulation. The equity return found in this inquiry can also be used for purposes of costing the services subject to the Commission's universal service support program, although the debt cost should be incremental rather than embedded.

Because capital structure significantly affects the costs of both debt and equity, the Commission should use the same sample of carriers for purposes of setting the surrogate capital structure, the cost of debt and the cost of equity. That sample should be the RBOCs, principally because the remaining candidates differ from the RBOCs in their capital structure, service makeup and size. In 1997, the debt/equity ratio of the RBOCs was 44/56, and the embedded debt cost 7.39 percent.

While the RBOCs incur greater business risk than the rate-of-return carriers, their much greater size provides them far easier access to low-cost capital. These offsetting effects suggest that the return to equity for the RBOCs can be considered appropriate for setting the access rates of rate-of-return carriers.

GSA employs, as the growth factor in the classic DCF calculation, an average of the three and five year earnings forecasts by investment analysts as reported in S&P's ACE database. GSA also develops the dividend yield using the Commission's formula for estimating next year's dividend and the average of the closing prices of each RBOC's shares over the past three months. The classic DCF calculation yields a rate of return on equity of 10.62 percent.

This rate of return excludes quarterly dividend compounding for the reasons cited in the Commission's Notice. This adjustment is also irrelevant because the compounding of quarterly earnings through the reinvestment of dividend proceeds takes place outside of the issuance of dividends by the subject company. It also excludes

flotation costs, again for the reasons cited in the Commission's Notice plus the fact that flotation costs, were they incurred, would be an insignificant component of the total cost of any of the RBOCs' equity.

Historical DCF calculations may have some marginal value, but the application of recent trends in dividend growth yields unreasonably low returns. These returns suggest, however, that the analysts' forecasts used in the classic DCF formula may be biased toward the high side.

Neither of the risk premium methodologies discussed in the Notice should be given any weight by the Commission. The historical risk premium method relies on two erroneous assumptions, first, that there is a fixed and unchanging premium for equity investments over debt instruments, and second, that actual returns are an accurate representation of required returns.

The CAPM risk premium procedure suffers from the difficulty of identifying a suitable risk-free rate and from the unsupported assumption that there is a linear relationship between Betas and the risk premium of equity investment over a risk-free rate. A reliable CAPM requires the application of the DCF formula to the subject companies, and so adds little to the basic DCF analyses.

GSA calculates the weighted cost of capital as 9.27 percent. However, because the state commissions have been allowing somewhat higher returns in their TELRIC and TSLRIC decisions, GSA recommends that the rate of return be set at 9.5 percent. This return should be the midpoint of a range reasonableness of, say, +/- 50 basis points within which a carrier's return should be allowed to vary without a change in its access rates.

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

**RECEIVED**

**JAN 19 1999**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Prescribing the Authorized  
Unitary Rate of Return for  
Interstate Services of Local  
Exchange Carriers

CC Docket No. 98-166

**DIRECT CASE  
of the  
GENERAL SERVICES ADMINISTRATION**

The General Services Administration ("GSA")<sup>1</sup> submits this Direct Case on behalf of the customer interests of all Federal Executive Agencies ("FEAs") in response to the Commission's Notice Initiating a Prescription Proceeding ("Notice") released on October 5, 1998. In the Notice, the Commission initiates a proceeding to represcribe the authorized rate of return for interstate access services provided by incumbent local exchange carriers ("ILECs") and seeks comment on the methods by which it can calculate the ILECs' cost of capital.

**I. INTRODUCTION**

Pursuant to Section 201(a)(4) of the Federal Property and Administrative Services Act of 1949, as amended, 40 U.S.C. 481(a)(4), GSA is vested with the responsibility to represent the customer interests of the FEAs before Federal and state regulatory agencies. The FEAs require a wide array of interexchange and local telecommunications

---

<sup>1</sup>Appendix A to these Comments is an index of acronyms. GSA recommends that the Commission consider including such an index with each its more lengthy notices and orders.

services. From their perspective as end users, the FEAs have consistently supported the Commission's efforts to bring the benefits of competitive markets to consumers of all telecommunications services.

As recognized in the Notice,<sup>2</sup> GSA has supported the Commission's initiation of this inquiry. GSA believes that the need for regulation in general, and rate-of-return regulation in particular, is inversely related to the degree of competition. With sufficient effective competition, there would be no need to set a rate of return for small carriers, nor would there be a requirement to establish price caps for large carriers. Unfortunately, the level of competition for interstate access services is still very low. The Common Carrier Bureau's Industry Analysis Division recently reported that notwithstanding the passage of the Telecommunications Act in February of 1996, Incumbent Local Exchange Carriers ("ILECs") still account for 96.8 percent of all local services revenues.<sup>3</sup> This means that ILECs continue to hold dominant market power over the access between most telephone subscribers and the public switched network.

Additionally, the Commission's interstate universal service support program requires that a rate of return be applied to the forward-looking economic costs of the supported services. In its Universal Service Order of May 8, 1997, the Commission prescribed that the cost studies or models employed for costing supported services use either the authorized federal rate of return, then 11.25 percent, or the state's prescribed rate of return for intrastate services.<sup>4</sup> Since the capital markets now indicate that there has been a substantial reduction in the cost of capital, the 11.25 percent is probably no longer appropriate, and it is therefore necessary to conduct this inquiry to reset that return. The

---

<sup>2</sup>See ¶14 of the Notice for reference to GSA's position.

<sup>3</sup>Local Competition, Industry Analysis Division, Common Carrier Bureau, FCC, December 1998, Table 2.1

<sup>4</sup>Report and Order, CC Docket No. 96-45, *Federal-State Joint Board on Universal Service*, May 8, 1997, ¶250(4).

return to equity found in this proceeding should be appropriate for purposes of universal service costing, as it is a going-forward cost. The cost of debt, however, would not be appropriate because it reflects the embedded cost of past debt, not the going-forward cost of new debt issues.<sup>5</sup>

## II. CAPITAL STRUCTURE, COST OF DEBT, AND COST OF PREFERRED STOCK

The Commission proposes to employ the capital structure, cost of debt and cost of preferred stock of all ILECs with annual revenues of \$100 million or more. Appendix B to the Notice indicates that this definition captures 49 operating companies. Nineteen of these companies are Bell companies, 11 are GTE companies, 12 are Sprint subsidiaries. The remaining 7 companies are "independents." Certainly, these carriers are a valid cross-section of the industry, and the factors that the Commission proposes to use are reflective of industry-wide practice.

The difficulty with this selection, however, is that it does not match the sample of carriers that the Commission proposes to use for estimating the cost of equity. For that purpose, the Commission has tentatively concluded that it will use the Regional Bell Operating Companies ("RBOCs"),<sup>6</sup> a conclusion that GSA supports, as discussed below. However, capital structure and the cost of senior capital are not independent of the cost of equity. To the contrary, they are closely related. The greater the proportion of debt, the greater the financial risk of the company's capital instruments, both debt and equity. Conversely, a company with a very low proportion of debt in its capital structure will have

---

<sup>5</sup>Appendix B to the Notice shows that the average embedded cost of debt for all local exchange carriers over \$100 million in revenues was 7.35 percent in 1997. The Federal Reserve's statistical release of January 5, 1999 shows that the December yield on corporate Aaa bonds was 6.22 percent and for Baa bonds was 7.22 percent.

<sup>6</sup>Notice, ¶20.

capital subject to a very low level of financial risk. A company with no debt at all incurs no financial risk whatever (although it may face considerable business risk), so that there is no difference between the cost of its equity and the cost of its total capital.

Appendix B shows the capital structures and debt costs separately for the RBOC and non-RBOC companies listed in Appendix B to the Notice. The debt costs are not much different, 7.39 percent for the RBOCs vs. 7.19 percent for the non-RBOCs. The capital structures are different, however, with an equity ratio of 56.0 percent for the RBOCs and 60.2 percent for the non-RBOCs.

Intuitively, these results are inexplicable. The higher equity proportion of the non-RBOCs should translate into a debt cost differential greater than 20 basis points. The explanation lies in the highly distorted capital structure data for several of the non-RBOC companies whose parent companies issue debt on behalf of their subsidiaries. An example is the Rochester Telephone Company, ("Rochester") the ILEC affiliate of Frontier Corporation. Appendix B shows the debt ratio for Rochester as only 12.76 percent. S&P reports that the debt ratio for Frontier, the parent company, was 49.1 percent at the end of 1997, inclusive of short term maturities. Similarly, Central Telephone Company shows a debt ratio of only 21.56 percent, while the parent company, Sprint, reports a year-end 1997 debt ratio of 31.6 percent.

Even if the financial risks of the two groups of companies were the same, their business risks are not. The one consistent characteristic of the RBOCs is that they are precluded by the terms of the 1996 Telecommunications Act (and before that, the Modification of Final Judgment of 1982) from entering the interLATA long distance business. The common characteristic of all the non-RBOCs is that they do not face this prohibition and, indeed, some of the larger non-RBOCs, most notably Sprint, have established themselves as major players in that business. Others, such as Aliant, have

become active Competitive Local Exchange Carriers ("CLECs") outside of their traditional service territories, which the RBOCs, so far, have refrained from doing on any large scale.

For these reasons, GSA strongly recommends that the Commission adopt the same sample of carriers for determining the capital structure, the cost of debt and the cost of preferred stock as it uses for determining the cost of equity. This sample should be the RBOCs. As shown in Appendix B to these Comments, the debt ratio should be 44.0 percent, the equity ratio 56.0 percent, and the cost of debt 7.39 percent. There is no RBOC preferred stock. Given that these data are now a year old, it may be advisable for the Commission to defer adopting final values for these factors until year-end 1998 data are available.

### **III. THE COST OF EQUITY**

#### **A. Surrogate Companies**

The Commission tentatively selects the RBOCs as the sample of companies to be used for purposes of determining equity return.<sup>7</sup> It asks whether this tentative conclusion continues to be appropriate and whether other companies might be included in the list.<sup>8</sup>

The objective of this selection process should be to find a sample of companies

---

<sup>7</sup>For purposes of equity analysis, the term "RBOC" is a misnomer. The RBOCs are subsidiaries to Regional Bell Holding Companies ("RBHCs"), which are the entities whose stock is priced by the market. Most RBHCs have other unregulated subsidiaries in addition to the RBOCs. Those subsidiaries do not operate telephone services subject to the Commission's jurisdiction. However, for purposes of consistency with the Notice, the acronym "RBOC" will be used throughout these Comments.

<sup>8</sup>Notice, ¶20.

with business risks similar to the interstate access services of the 1300 rate-of-return carriers,<sup>9</sup> almost all of which are small, mostly rural companies.

The mix of RBOC services, of course, goes well beyond interstate access. Many of the RBOCs provide wireless service, which has always been subject to some competition, and that competition is increasing. All provide competitive private line and intraLATA long distance services. Additionally, most RBOCs have made investments in unregulated activities, often in foreign markets. Overall, the RBOCs' business risk is greater than that associated with interstate access services.

Thus, if the objective of this exercise were to set a rate of return for the RBOCs' interstate access services, then it would be appropriate to make a downward adjustment in the companies' overall return before applying it to the regulated services. In this case, however, the RBOCs' rate of return is to be applied to the capital of a different set of companies, those not under price caps.

Notwithstanding their higher business risk, the RBOCs have attributes which reduce their overall risk relative to that of the companies subject to rate of return regulation. The most important is their much larger size. RBOC stock is listed on the NYSE, and RBOC bonds are subject to evaluation by all of the major rating agencies. RBOCs thus have much easier and lower-cost access to the capital markets. They have far greater leverage over suppliers and interconnecting carriers. They are able to bid for large, lucrative accounts, many of which may provide profitable unregulated business along with their regulated services. Moreover, they all cover wide geographical service territories, so that they are not subject to the vicissitudes of local economic developments.

---

<sup>9</sup>News Release of October 5, 1998 announcing the Notice.

---

It is impossible to measure the tradeoff between the elements that increase and decrease the relative degree of risk between the RBOCs and the rate-of-return carriers. Since rate of return estimation is a highly inexact process anyway, there is probably little lost by way of precision in assuming that the cost of equity to the RBOCs approximates that of the rate-of-return carriers.

Some other companies might be in the running as part of the sample of carriers suitable for rate of return estimation. GTE is a leading candidate. Unfortunately, GTE's consolidated capital structure is so different from that of the RBOCs -- and even its own operating subsidiaries -- as to disqualify it from consideration. The debt ratio for the parent company is 64.3 percent,<sup>10</sup> which contrasts with the RBOCs' 44.0 percent shown in Appendix B. The inclusion of this highly leveraged company in the sample would have the effect of inflating the rate of return of the typical telephone operating company, including even GTE's own operating subsidiaries, none of which has a debt ratio higher than 50.2 percent.

The United and Central telephone companies would be suitable for inclusion were they not owned by Sprint, which is best known to the public -- including the investing public -- as a long-distance carrier. The remaining independents, Frontier, Aliant, Cincinnati Bell, Southern New England Telephone, and Citizens, all have long-distance, CLEC and cellular activities that set them apart from the RBOCs. They are also much smaller than the RBOCs, so that their inclusion would require some sort of weighting process to recognize their relative position in the telephone industry.

---

<sup>10</sup>Based on \$14,494 million long term debt and \$8,038 million equity as reported in GTE's Annual Report to Stockholders, 1997. The debt component excludes debt maturing in one year.

## **B. Discounted Cash Flow Methodology**

GSA concurs with the Commission's apparent finding that the Discounted Cash Flow ("DCF") methodology is the preferred procedure for finding the rate of return to equity. That is because it operates from the market valuation of the companies' stock as determined by the whole body of investors.

The basic premise of the DCF procedure is that the market values each stock at the discounted present value of all future flows of cash that investors expect from purchasing that stock. The discount rate that equates those future cash flows with the market value of the stock is the required rate of return.

The DCF approach is usually represented by the following formula:

$$k = \frac{d}{P} + g$$

where  $k$  = required rate of return  
 $d$  = dividend in the immediate period  
 $P$  = market price  
 $g$  = expected growth rate in dividends

While the DCF method is usually presented in mathematical notation format (as above), it can also be described in narrative fashion. The formula says that the return which any investor expects from the purchase of a stock consists of two components. The first is the immediate cash flow in the form of a dividend. The second is the prospect for future growth in dividends. The sum of the rates of these two flows, present and future, equals the return that investors require. Investors adjust the price they are willing to pay for the stock until the sum of the dividend yield and the annual rate of expected future growth in dividends equals the rate of return they expect from other investments

of comparable risk. The DCF test thus determines what the investing community requires from the company in terms of present and future dividends relative to the current market price.

**1. Growth Rate**

The Commission proposes to use S&P's Analysts' Consensus Estimates ("ACE") of the growth in long-term earnings per share in lieu of the Institutional Brokers Estimates Service as the basis for the most controversial of the elements of the DCF formula, the "g" factor.

ACE provides two bases for estimating the long-term growth rate, one a three-year forecast of earnings per share, the other a five-year average percentage growth projection. As of early December, the ACE forecasts, and their average, were as follows

Table 1  
RBOC Earnings Per Share Forecasts

Company	1997 EPS	2000 EPS Forecast	3-Yr. Growth Rate	5-Yr Growth Rate	Average Growth Rate
Ameritech	\$2.09	\$2.61	7.69%	9.0%	8.34%
Bell Atlantic	1.58	1.905	6.43%	8.0%	7.22%
BellSouth	3.30	4.285	9.10%	8.0%	8.55%
SBC	<sup>11</sup>	1.216	n.a.	11.0%	11.0%
US WEST	2.44	2.773	4.36%	6.0%	5.18%

<sup>11</sup>Omitted due to 1997 special charge of \$2.75 billion.

## 2. Dividend Yield

The dividend yield should be the next year's dividend divided by a recent average of the price of the stock. The next year's dividend for the five RBOCs is computed in Table 2 using the most recent dividend annualized plus one half the analysts' long-term growth rate, as suggested by the Commission.<sup>12</sup>

Table 2  
RBOC Dividends, Forecast for 1999

Company	Dividend <sup>13</sup>	1/2 Growth	Forecast
Ameritech	\$1.27	4.17%	1.32
Bell Atlantic	1.54	3.61%	1.56
BellSouth	0.76	4.27%	0.79
SBC Communications	0.94	5.50	0.99
US WEST	2.14	2.59%	2.20

The denominator of the dividend yield calculation is the price of the stock. Here, some judgement is required to establish a set of price observations that capture the investing public's current perception of value while at the same time reflecting some stability in the market. Given the dramatic fluctuations of the markets in recent months, a price observation for a single day, week, or even month runs the risk of becoming obsolete in a very short time. Market fluctuations also mean that the use of monthly highs and lows, as recommended in the Notice<sup>14</sup>, may exaggerate the effect of some of

---

<sup>12</sup>Notice ¶28.

<sup>13</sup>Taken from the Home Pages of the respective companies.

<sup>14</sup>Notice, ¶28.

the sharp drops and rises that the markets have experienced recently.

GSA therefore recommends an average of the closing prices for all trading days during the most recent three months. On this basis, the dividend yield for the five RBOCs can be calculated as follows:

Table 3  
RBOC Dividend Yield

Company	Dividend	Price <sup>15</sup>	Yield
Ameritech	\$1.32	\$55.49	2.38%
Bell Atlantic	1.56	54.36	2.87%
BellSouth	0.79	42.44	1.86%
SBC Communications	0.99	48.45	2.04%
US WEST	2.20	60.14	3.66%

At para. 24 of the Notice, the Commission tentatively concludes that it will not compound the quarterly dividends for three reasons: (1) the Commission uses a mid-year rate base, (2) the adjustment adds unnecessary complexity and (3) investors and analysts do not use compounding models.

To these three thoroughly valid reasons can be added a fourth: irrelevance. The rationale for dividend compounding is that the yield from quarterly dividends is greater than the simple summation of those dividends because investors have the opportunity to earn return during the portion of the year following the receipt of each dividend. Thus,

---

<sup>15</sup>Average of closing prices October 11, 1998 - January 10, 1999 as reported by Yahoo Financial Data.

the yield on the first quarter's dividend is supplemented by that dividend's earnings power during the three remaining quarters that the investor holds it. The second quarter's dividend earns additional return during the following two quarters. The third dividend generates a quarter of a year's return.

All this is true, but it has nothing to do with the cash dividends that must be generated by the dividend-issuing company to satisfy investors' requirements. Investors' ability to earn on quarterly dividends is quite outside of the cash flow from the company: it is achieved by taking that cash flow and reinvesting it elsewhere. The cash flow from the company does not need to be supplemented.

### **3. Flotation Costs**

In para. 25 the Commission tentatively concludes that it will make no adjustment for flotation costs for the same three reasons that it rejected such an adjustment in the 1990 proceeding: (1) the RBOCs are not issuing stock, (2) past costs have not gone unrecovered, and (3) the absence of an adjustment has not adversely affected stock price.

Once more, there is a fourth reason that can be added: insignificance. Conventionally, flotation costs are calculated to be between 5 and 10 percent of the value of a new stock issue. For a mature company, new stock issues will never amount to more than a small fraction of the total value of the outstanding equity. Assume, for example, that Ameritech were to raise \$300 million -- an extraordinary amount -- in a new stock issue. That would amount to 3.6 percent of the \$8.3 billion value of the Company's equity at the end of 1997. If flotation costs amounted to, say, 7 percent of the new issue, the cost would be \$21 million. Twenty-one million divided by \$8.3 billion comes to 0.25

percent of the Company's equity, an adjustment that would be lost in the rounding.

The reason that flotation costs come up at all is that utilities occasionally seek to have the percentage cost of new issues of stock added to the entire amount of the equity outstanding. Such an adjustment grossly overcompensates the Company for its stock flotation costs because it retroactively applies the factor to all past stock issues and to all retained earnings. The latter, of course, never incurred flotation costs.

#### 4. Classic DCF Calculation

Para. 26 of the Notice refers to the use of analysts' forecasts and dividend yields as described above as the "classic" DCF calculation. The Commission tentatively concludes that this method be given the greatest weight in determining the rate of return to equity. GSA fully agrees with this conclusion. The indicated rates of equity return using this calculation are as follows:

Table 4  
RBOC Equity Return "Classic" DCF Calculation

Company	Dividend Yield	Growth	Return
Ameritech	2.38%	8.34%	10.72%
Bell Atlantic	2.87%	7.22%	10.09%
BellSouth	1.86%	8.55%	10.41%
SBC Communications	2.04%	11.0%	13.04%
US WEST	3.66%	5.18%	8.84%
Average, All RBOCs			10.62%

Para. 26 also seeks comment on the Commission's tentative conclusion to perform "classic" DCF analyses for S&P 400 industrials and a selection of large utilities. GSA agrees that these calculations may have some peripheral "benchmarking" value. However, they do not relate directly to the central issue of a revised rate of return for telephone carriers. The risks confronting industrial companies in competitive markets are altogether different from those of ILECs with established service territories and large numbers of captive customers.

Electric utilities have traditionally been considered to face even less business risk than telephone companies, although they typically offset that condition with more leveraged capital structures. Recently, however, the electric industry begun to face the prospect of the kind of restructuring and introduction of competition that began in the telephone industry in the 1970s. In response to these changes, many electric companies have made substantial investments in non-regulated enterprises. Often these enterprises involve the construction or acquisition of competitive "merchant" plants or foreign utility operations. This diversification, however, is spotty, so that the business risk of firms within the electric utility industry is no longer as homogeneous as it was when the Commission last examined the ILECs' capital costs. As a consequence, the value of composited electric utility DCF returns as a benchmark for the telephone rates of return has probably declined.

#### **5. Historical DCF Calculation**

Historical trends in dividends and earnings are valuable only to the extent that investors regard them as indicators of their future expectations. Most financial reports display considerable historical data, including past EPS and dividends, which suggests that this information is of interest to investors and analysts.

The Commission rightly rejects use of the two-year record of quarterly dividends as basis for an historical DCF calculation, but this does not mean that past trends should be disregarded altogether. Some insight into investor expectations might be gained by examining historical patterns of earnings and dividends.

Unfortunately, recent historical trends in RBOC earnings have been extraordinarily erratic. This is partly owing to mergers (SBC, Bell Atlantic) and partly to special charges (all five RBOCs in 1993, 1994 or 1995).

Dividend growth is more stable, and it reflects to some extent management's view as the sustainable trend in earnings. No management will increase the dividend if it believes that this year's high earnings are a fortunate aberration. Nor will management increase the dividend in the face of poor earnings unless it is confident that the future promises better results.

The problem with using historical trend information is picking the terminal points. The following is a comparison of the annual trend in dividends to 1998 using starting dates of 1993, 1994 and 1995.

Table 5  
Annual Percentage Change in RBOC Dividends

Company	1993-1998	1994-1998	1995-1998
Ameritech	5.41%	5.72%	6.35%
Bell Atlantic	2.79%	2.70%	3.18%
BellSouth	1.07%	1.41%	1.60%
SBC Communications	4.31%	4.25%	4.20%
US WEST	0.06%	0.00%	0.00%

When these growth rates are combined with the dividend yields calculated in Table 3, the DCF results are as follows:

Table 6  
DCF Calculation Using Historical Dividend Trends

Company	1993-1997	1994-1997	1995-1997
Ameritech	7.79%	8.10%	8.73%
Bell Atlantic	5.66%	5.57%	6.05%
BellSouth	2.93%	3.27%	3.46%
SBC Communications	6.35%	6.29%	6.24%
US WEST	3.72%	3.66%	3.66%
All RBOCs	5.29%	5.38%	5.63%

Given that the average yield on Aaa grade corporate bonds is currently on the order of 6.2 percent,<sup>16</sup> these rates of return are unreasonably low. They indicate quite clearly that investors expect the RBOCs to do considerably better in the coming years than they have in the recent past.

The historical results may also suggest another factor: the possible bias of investment analysts toward overestimation. Most investment analysts are employed by firms engaged in the trading of securities, including stocks. It is to their self-interest to encourage the public to invest its savings in the stock market. This self-interest may lead to a tendency toward optimism which creates an upward bias in the EPS growth predictions.

---

<sup>16</sup>Federal Reserve Statistical Release of January 5, 1998.

This is not to say that the predictions of investment analysts are totally unreliable and therefore useless for purposes of DCF analysis. Rather, it is to suggest that, just as historical DCF analysis is biased toward low estimates, so the use of investment analysts' predictions may have a bias toward high estimates. As a consequence, any DCF results that are based on those predictions should be considered as generous to the affected companies.

### **C. Risk Premium Methodologies**

Beginning in para. 31 of the Notice, the Commission seeks comment on the use of two risk premium methodologies, the capital asset pricing model and the "traditional," or historical risk premium model. GSA recommends that the Commission give little weight to either of these methodologies.

#### **1. Historical Risk Premiums**

The historical risk premium model is conceptually so flawed as to be without value. It relies on two erroneous assumptions: first, that the risk premium for equity investment is fixed for extended periods of time, and second, that the risk premium can be derived from observations of realized returns in the past.

It is flatly incorrect to assume that there is a constant and unchanging premium that investors require for the added risk of equity investment relative to debt. The risks of stocks and bonds are inversely related. During periods of slow economic growth or recession, bonds are a safe haven from the threat of declining earnings. Inflation, which is the principal risk of fixed income securities, tends to be quite low during recessions. The equity risk premium relative to between debt is quite high.

---

In the past (although happily not at present) periods of high growth tended to be accompanied by the potential -- and sometimes the reality -- of high inflation. In that environment, stocks become the haven. Not only do stocks receive the benefit of expanded markets and increased earnings, but their value rises with inflation, often ahead of inflation. Bonds, which have a fixed nominal return, decline in value in the face of threatened inflation, and their yields increase. The risk premium for stocks declines. Indeed, it was argued during the oil crises of the 1970s that the risk premium had become negative.<sup>17</sup>

The other assumption, that realized returns represent required returns, may have some credibility over extended periods of time. It is based on the proposition that realized returns have a "random walk" such that although no one investor necessarily realizes his required return, the whole body of investors over time realize their requirements on average. Otherwise, no one would continue investing.<sup>18</sup>

While conceptually this theory has some credibility, it certainly does not apply during limited periods of time. No one would have invested a dollar during 1929 had they known the returns that were actually realized in 1930. Conversely, the realized returns from stock investment during the past five years have far exceeded even the most optimistic expectations of investors at the beginning of that period.

Because the tie between required and realized returns can be measured only over very extended periods of time, while the fluctuation in risk premiums varies with inflation

---

<sup>17</sup> Connecticut D.P.U. Docket No. 76-0604, 5, Testimony of Charles W. King, November 10, 1977.

<sup>18</sup> R.G Ibbotson and R.A. Sinquefeld, *Stocks, Bonds, Bills, and Inflation: The Past and the Future*, Financial Analysts Research Foundation, 1982 Edition, Monograph #15.

and business cycle expectations, the historical model is virtually useless as a means to estimate the risk premium at any one time.

## **2. The Capital Asset Pricing Model ("CAPM")**

The alternative risk premium model is the CAPM. This model at least uses current market data. It first seeks to measure the difference between a risk-free rate of return and the average return required for the whole equities market. Then it adjusts that market return for the difference in "systematic risk" of the individual companies under study. That risk is measured by the "Beta," which is the covariance of the stock's price with that of the market overall. A stock that exaggerates the market's fluctuations is assigned a Beta of more than 1.0; one that minimizes the market's variation has a Beta of less than 1.0.

Unlike the historical risk premium methodology, this approach is at least credible conceptually. Its problems relate to measurement.

The first problem of measurement is finding the risk-free rate. The "long bond", that is, the 30-year Treasury bond is often used, even though there is ample evidence that it suffers considerable risk. The evidence is presented in the chart in Appendix C, which compares the yields on the 30 year bond, 3-year bonds and 3-month Treasury bills during the period 1988 through 1998. Throughout this period, the shorter term securities yielded much lower returns than the long bond. More important, these yields varied over time.

The explanation for these differences is the risk of inflation. Three month bills have virtually no inflation risk. They come due long before inflation can have an erosive effect on their fixed nominal return. Three-year bonds are somewhat more subject to inflation risk, but at least their term is within the horizon of most economic forecasts. The 30 bond

represents a gamble that, over several decades, the rate of inflation will not erode the value of the fixed interest payment. That gamble requires a premium. Thus, the 30 year bond is not risk free.

The solution arguably is to use the 3 month Treasury bill rate. The difficulty there is that this rate is very much affected by the month-to-month requirements of the Government for cash, and so it is quite unstable.

The next problem is the measurement of the return required of the market. The Commission proposes to use the DCF returns of S&P's 400 industrials. This is a reasonable proposal, but it suffers from the problem of redundancy. If the DCF procedure is employed to implement the CAPM, why bother with the CAPM in the first place? Why not use the DCF model as the basic measure of equity return?

The answer propounded by CAPM advocates is that the Beta is applied to the risk premium, not to the absolute level of return, so it is necessary to measure that premium. The presumption is that the Beta is linearly related to the difference between the risk free rate and the market return. A Beta of 0.0 would yield a return requirement equivalent to the risk-free rate, so a Beta of .5 should translate into the risk free rate, plus one-half of the market's risk premium.

Unfortunately, no one has established that relationship empirically. It could be tested by regressing the DCF returns of individual companies against their Betas. This proper implementation of the CAPM again raises the question of redundancy. If the DCF model is to be used to implement the CAPM, why bother with the CAPM in the first place?

It is questionable, therefore, whether the CAPM adds much to the search for a

reasonable equity return. GSA suggests that given the problems of measurement, the CAPM should be accorded very little weight.

#### **D. Cost of Equity - Summary**

The foregoing survey of methodologies confirms the Commission's tentative conclusion to use the "Classic" DCF procedure as the primary basis for estimating the cost of equity. Historical DCF analysis suggests that the classic estimate may be biased on the high side, but this indication cannot be proved.

GSA's implementation of the classic DCF methodology in Table 4 yields a return of 10.62 percent for the five RBOCs. In the interest of avoiding specious precision, GSA recommends rounding this indication up to 10.75 percent.

#### IV. OVERALL RETURN ON CAPITAL

##### A. Indicated Cost of Capital

The application of the 10.75 percent to the capital structure and the debt cost identified earlier in these Comments yields the following overall cost of capital:

Table 7  
RBOC Overall Cost of Capital

Element	Proportion	Cost	Weighted Cost
Debt	.44	7.39%	3.25%
Equity	.56	10.75%	6.02%
Total Capital	1.00		<b>9.27%</b>

##### B. Comparison with State Cost of Capital Findings

The Notice proposes to compare the results of the Commission's analysis to those of state commissions using the publication of the National Association of Regulatory Commissioners ("NARUC") titled "Utility Regulatory Policy in the United States and Canada." That publication lists the most recent rate-of-return decisions at the time of its issuance, but the latest issue concludes with commission decisions effective December 31, 1996. It therefore misses all state commission findings in 1997 and 1998.

In response to the Telecommunications Act of 1996, virtually every state commission has convened a docket during 1997 or 1998 to determine the appropriate costing models and parameters for finding the Total Element Long Run Incremental Cost ("TELRIC") of the unbundled network elements that CLECs might lease from the ILECs

and the Total Service Long Run Incremental Cost ("TSLRIC") of services subject to universal service support. One of the parameters that each commission must find is the costs of capital. Many commissions have adopted this Commission's 11.25 percent, but some have made their own findings.

Appendix D to these comments is a summary of the state commission rate-of-return findings that GSA has been able to identify. The simple average of the rates-of-return findings is as follows:

Table 8  
State Rate-of-Return Findings

Ameritech	9.90%
Bell Atlantic/NYNEX	10.60%
BellSouth	10.07%
SBC	10.20%
US WEST	9.68%

These rates of return are all higher than the 9.27 percent found in these Comments. Probably this relationship results from the fact that most of these findings reflected a stock market that was somewhat lower than that observed during the most recent three months. In general, a lower stock market would indicate a higher required rate of return.

### C. GSA's Recommended Rate of Return

In recognition of the higher state rates of return, and of the fact that rate-of-return analysis is extremely imprecise, GSA recommends a rate of return for interstate access and universal service support of **9.5 percent**.

#### **D. Zone of Reasonableness**

At para. 41 of the Notice, the Commission inquires whether it should make further adjustments to the RBOCs' cost of capital to reflect the relative risks of interstate access and cellular services, infrastructure development, competition, mergers and any other factors commenters may care to propose. The presumption is that these effects may not be captured in the DCF results for the RBOCs or, if captured, may be inappropriate for application to the rate-of-return carriers.

It is inappropriate to adjust DCF returns for on-going developments such as the emergence of competition, infrastructure development and mergers because those factors are already incorporated into the analysts' assessments of future earnings growth. To the extent these developments are appropriately includable in the return allowed to rate-of-return carriers, they are already there. To the extent they are not includable, they cannot be measured.

GSA has already addressed the suitability of using RBOC returns to price the interstate access services of the small, predominantly rural carriers that are still under rate-of-return regulation. While the match is not ideal, the countervailing effects of the RBOCs' greater business risk and their superior access to capital suggest that their capital costs are an adequate surrogate for rate of return for the small carriers still subject to cost-based regulation. Most important, there is no reasonable basis for measuring the differences in risk -- and the consequent differences in capital costs -- between the RBOCs and the rate-of-return carriers.

If the Commission is to consider a zone of reasonableness, it should be in the application of the rate of return, not in its calculation. That is, the Commission should consider establishing a range around the chosen rate of return where it will allow returns

to vary without adjustment. If, for example, the Commission adopts GSA's recommended 9.5 percent, it might establish a range of +/- 50 basis points, that is, from 9.0 to 10.0 percent, as the zone of reasonableness for the return on interstate access services. As long as the carrier's return is within that zone, it does not have to adjust its rates. Above the upper limit of that return, rates must be reduced, and below the bottom threshold, they may be increased.

The use of a range of reasonableness in experienced rates of return has two advantages. First, it avoids annual rate adjustments, as necessarily must happen if a point rate of return is adopted. Second, it provides an incentive toward efficiency that is otherwise missing. Such an incentive is particularly important in the present condition of declining costs throughout the telephone industry. Without it, the perverse incentive is to allow costs to increase unnecessarily so as to avoid rate reductions.

**V. CONCLUSION**

As a major user of telecommunications services, GSA urges the Commission to adopt the methods and rate of return recommended herein.

Respectfully submitted,

GEORGE N. BARCLAY

Associate General Counsel  
Personal Property Division



MICHAEL J. ETTNER

Senior Assistant General Counsel  
Personal Property Division

GENERAL SERVICES ADMINISTRATION  
1800 F Street, N.W., Rm. 4002  
Washington, D.C. 20405

(202) 501-1156

January 19, 1999

**APPENDIX A  
LIST OF ACRONYMS**

<b>ACE</b>	<b>Analysts' Consensus Estimates</b>
<b>CAPM</b>	<b>Capital Asset Pricing Model</b>
<b>CLEC</b>	<b>Competitive Local Exchange Carrier</b>
<b>DCF</b>	<b>Discounted Cash Flow</b>
<b>EPS</b>	<b>Earnings Per Share</b>
<b>FEAs</b>	<b>Federal Executive Agencies</b>
<b>GSA</b>	<b>General Services Administration</b>
<b>ILEC</b>	<b>Incumbent Local Exchange Company</b>
<b>NARUC</b>	<b>National Association of Regulatory Utility Commissioners</b>
<b>NYSE</b>	<b>New York Stock Exchange</b>
<b>RBHC</b>	<b>Regional Bell Holding Company</b>
<b>RBOC</b>	<b>Regional Bell Operating Company</b>
<b>S&amp;P</b>	<b>Standard &amp; Poor</b>
<b>TELRIC</b>	<b>Total Element Long Run Incremental Cost</b>
<b>TSLRIC</b>	<b>Total Service Long Run Incremental Cost</b>

**Appendix B, 1 of 2**  
**Local Exchange Carrier Cost of Debt, Cost of Preferred Stock and Capital Structure for the Year 1997\***  
*(Dollars in thousands)*

Local Exchange Carrier (1)	Total Debt			1997 Interest Expense d	Cost of Debt for 1997 e=d/c	Total Preferred Stock (2)			Annual Pref. Div 1997 i	Cost of Pref. Stk. for 1997 j=i/h
	12/31/96 a	12/31/97 b	Average for 1997 c=(a+b)/2			12/31/96 f	12/31/97 g	Average for 1997 h=(f+g)/2		
<b>RBOCs</b>										
Illinois Bell	\$ 1,781,375	\$ 2,073,289	\$ 1,927,332	\$ 118,556	6.15%					
Indiana Bell	287,918	274,348	281,133	18,293	6.51%					
Michigan Bell	1,235,415	1,146,581	1,190,998	84,461	7.09%					
Ohio Bell	910,633	1,025,549	968,091	65,762	6.79%					
Wisconsin Bell	449,133	497,295	473,214	30,811	6.51%					
Bell Atlantic-Washington D.C.	289,736	251,807	270,772	20,121	7.43%					
Bell Atlantic-Maryland	1,030,800	1,095,705	1,063,253	71,786	6.75%					
Bell Atlantic-Virginia	996,367	1,054,643	1,025,505	71,596	6.98%					
Bell Atlantic-West Virginia	263,512	263,636	263,574	18,746	7.11%					
Bell Atlantic-Delaware	133,908	150,856	142,382	9,795	6.88%					
Bell Atlantic-Pennsylvania	1,621,919	1,685,744	1,653,832	121,621	7.35%					
Bell Atlantic-New Jersey	1,524,578	1,688,532	1,606,555	112,737	7.02%					
Bell Atlantic - New England Tel.	2,167,259	2,174,183	2,170,721	151,775	6.99%					
Bell Atlantic - New York Telephone	3,897,352	3,795,009	3,846,181	354,228	9.21%					
BellSouth Corporation	8,064,527	7,951,669	8,008,098	548,595	6.85%					
Southwestern Bell Tel.	5,185,458	5,469,104	5,327,281	369,802	6.94%					
Pacific Bell - California	5,625,800	5,808,362	5,717,081	477,668	8.36%					
Nevada Bell	94,364	102,147	98,256	8,302	8.45%					
U S WEST Communications	6,049,931	5,367,346	5,708,639	430,153	7.54%					
<b>Total RBOCs</b>	<b>41,609,985</b>	<b>41,875,805</b>	<b>41,742,895</b>	<b>3,084,808</b>	<b>7.39%</b>			<b>0</b>		
<b>Other ILECs</b>										
Alltel of Pennsylvania	77,639	68,083	72,861	5,409	7.42%					
Alltel Georgia Comm. Corp.	194,651	198,901	196,776	12,966	6.59%					
The Western Reserve Telephone	63,521	65,471	64,496	5,220	8.09%					
Cincinnati Bell	277,670	284,016	280,843	20,390	7.26%					
GTE California, Inc.	1,471,114	1,709,094	1,590,104	110,208	6.93%	81,866	49,983	65,925	2,399	3.64%
GTE-Florida	893,216	975,588	934,402	63,781	6.83%	60,096	21,195	40,646	1,084	2.67%
Hawaiian Telephone	663,895	558,177	611,036	38,896	6.37%					
GTE of The Midwest, Inc.	357,524	372,200	364,862	29,128	7.98%					
GTE of The North, Inc.	1,765,181	1,760,856	1,763,019	129,599	7.35%	46,024	31,517	38,771	1,450	3.74%
GTE of The Northwest	735,743	774,114	754,929	56,099	7.43%					
GTE of The South	712,851	745,463	729,157	57,113	7.83%	3,151	3,090	3,121	150	4.81%
GTE of The Southwest	864,918	1,024,939	944,929	63,994	6.77%	14,050	9,110	11,580	446	3.85%
Contel of The South dba GTE	82,211	74,587	78,399	4,359	5.56%					
Contel of Minnesota dba GTE	39,236	48,931	44,084	3,186	7.23%					
GTE Arkansas, Inc.	74,208	76,794	75,501	6,300	8.34%					
Alliant Telecommun. Co.	43,907	43,935	43,921	4,561	10.38%	4,499	4,499	4,499	225	5.00%
Rochester Telephone	66,353	28,306	47,330	3,750	7.92%					
Southern New England Tel	742,097	663,296	702,697	49,202	7.00%					
Sprint - Florida, Inc.	575,805	479,076	527,441	43,839	8.31%					
Carolina Tel & Tel of NC	335,616	349,633	342,625	21,679	6.33%					
United of the Southeast, Inc.	117,700	122,306	120,003	9,373	7.81%					
Central-Virginia	106,684	118,469	112,577	6,876	6.11%					
United Tel of Ohio	179,562	199,359	189,461	13,686	7.22%					
United Tel of Indiana	62,214	61,016	61,615	4,560	7.40%					
United Tel of Missouri	116,115	139,108	127,612	9,598	7.52%					
Central Telephone Co.	314,267	399,307	356,787	25,630	7.18%	3,760	3,415	3,588	165	4.60%
United Tel of Texas	57,161	69,188	63,175	5,344	8.46%					
United Tel of New Jersey	53,109	60,774	56,942	4,443	7.80%					
United Tel of Pennsylvania	116,170	116,311	116,241	8,997	7.74%					
United Tel of the Northwest	58,806	61,891	60,349	4,212	6.98%					
<b>Total Non-RBOCs</b>	<b>11,219,144</b>	<b>11,649,189</b>	<b>11,434,167</b>	<b>822,398</b>	<b>7.19%</b>	<b>213,446</b>	<b>122,809</b>	<b>168,128</b>	<b>5,918</b>	<b>3.52%</b>
<b>TOTAL ILECs</b>	<b>\$ 52,829,129</b>	<b>\$ 53,524,994</b>	<b>\$ 53,177,062</b>	<b>\$ 3,907,206</b>	<b>7.35%</b>	<b>\$ 213,446</b>	<b>\$ 122,809</b>	<b>\$ 168,128</b>	<b>\$ 5,918</b>	<b>3.52%</b>

\* Sources:

Columns a & b: 1996 and 1997 ARMIS 43-02, Table B-1, Rows 420+4020+4050+4060-1407.

Column d: 1997 ARMIS 43-02, Table I-1, Row 7500.

Columns f & g: 1996 ARMIS 43-02, Table B-14, Column h less Column j for issuances with dividend rates.

Column i: The total dividend\*\* paid on a given issue was calculated using data taken from Table B-14 of 1996 and 1997

ARMIS 43-02. Where the dividend for a given issue is stated in dollars, the total dividend was calculated by the following:

[dividend amount per share \* ((dollar amount of stock issued and outstanding/par or stated value)

-number of treasury shares)]. Where the dividend of a given is stated a percent of par or stated value, the total :

dividend was calculated by the following: [(percent per share \* par or stated value) \* ((dollar amount of stock issued

and outstanding/par or stated value)-number of treasury shares)].

\*\* For purposes of the analysis, it is assumed that amount stock issued and outstanding includes treasury stock.

**Appendix B, 2 of 2**  
**Local Exchange Carrier Cost of Debt, Cost of Preferred Stock and Capital Structure for the Year 1997\***  
*(Dollars in thousands)*

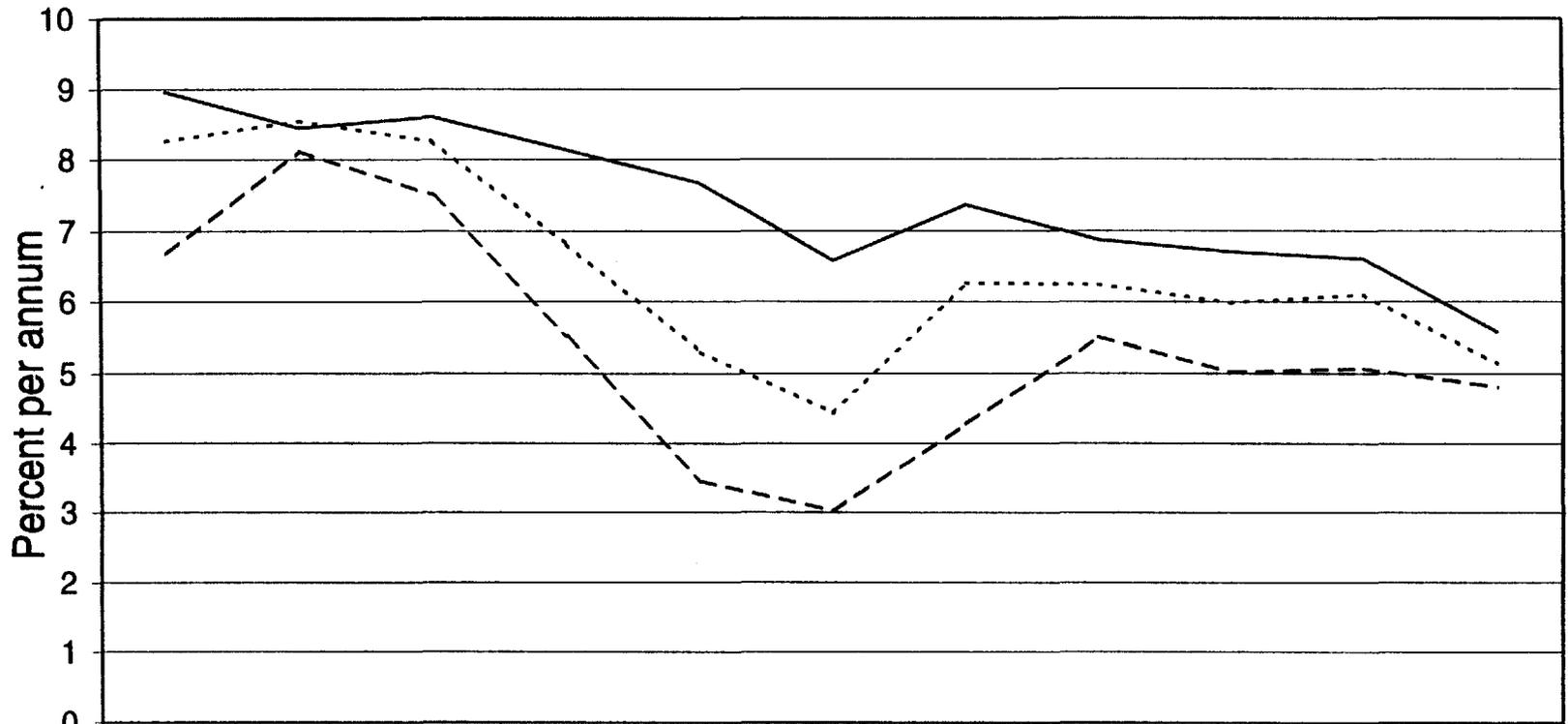
Local Exchange Carrier (1)	Total Common Equity			Total Capital n=c+h+m	Debt Ratio o=c/n	Pref. Stock Ratio p=h/n	Common Equity Ratio q=m/n
	12/31/96 k	12/31/97 l	Average for 1997 m=(k+l)/2				
<b>RBOCs</b>							
Illinois Bell	\$ 1,321,224	\$ 1,403,581	\$ 1,362,403	\$ 3,289,735	58.59%		41.41%
Indiana Bell	658,358	686,836	672,597	953,730	29.48%		70.52%
Michigan Bell	1,393,137	1,467,013	1,430,075	2,621,073	45.44%		54.56%
Ohio Bell	911,975	947,771	929,873	1,897,964	51.01%		48.99%
Wisconsin Bell	538,426	556,092	547,259	1,020,473	46.37%		53.63%
Bell Atlantic-Washington D.C.	412,058	464,616	438,337	709,109	38.18%		61.82%
Bell Atlantic-Maryland	1,440,941	1,290,088	1,365,515	2,428,767	43.78%		56.22%
Bell Atlantic-Virginia	1,234,493	1,074,207	1,154,350	2,179,855	47.04%		52.96%
Bell Atlantic-West Virginia	371,526	374,364	372,945	636,519	41.41%		58.59%
Bell Atlantic-Delaware	202,000	206,794	204,397	346,779	41.06%		58.94%
Bell Atlantic-Pennsylvania	2,265,440	1,987,374	2,126,407	3,780,239	43.75%		56.25%
Bell Atlantic-New Jersey	2,332,170	2,123,767	2,227,969	3,834,524	41.90%		58.10%
Bell Atlantic - New England Tel.	3,208,128	3,171,236	3,189,682	5,360,403	40.50%		59.50%
Bell Atlantic - New York Telephone	4,736,261	4,504,160	4,620,211	8,466,391	45.43%		54.57%
BellSouth Corporation	10,956,042	10,872,273	10,914,158	18,922,256	42.32%		57.68%
Southwestern Bell Tel.	6,859,107	6,767,301	6,813,204	12,140,485	43.88%		56.12%
Pacific Bell - California	7,256,863	6,219,442	6,738,153	12,455,234	45.90%		54.10%
Nevada Bell	131,051	157,564	144,308	242,563	40.51%		59.49%
U S WEST Communications	7,849,900	7,852,592	7,851,246	13,559,885	42.10%		57.90%
<b>Total RBOCs</b>	<b>54,079,100</b>	<b>52,127,071</b>	<b>53,103,086</b>	<b>94,845,981</b>	<b>44.01%</b>	<b>0.00%</b>	<b>55.99%</b>
<b>Other ILECs</b>							
Alltel of Pennsylvania	122,864	139,319	131,092	203,953	35.72%		64.28%
Alltel Georgia Comm.Corp.	318,638	321,118	319,878	516,654	38.09%		61.91%
The Western Reserve Telephone	97,781	98,544	98,163	162,659	39.65%		60.35%
Cincinnati Bell	450,558	439,587	445,073	725,916	38.69%		61.31%
GTE California, Inc.	2,485,238	2,304,214	2,394,726	4,050,755	39.25%	1.63%	59.12%
GTE-Florida	1,128,465	1,059,805	1,094,135	2,069,183	45.16%	1.96%	52.88%
Hawaiian Telephone	598,623	614,901	606,762	1,217,798	50.18%		49.82%
GTE of The Midwest, Inc.	536,869	516,706	526,788	891,650	40.92%		59.08%
GTE of The North, Inc.	2,404,499	2,427,788	2,416,144	4,217,933	41.80%	0.92%	57.28%
GTE of The Northwest	992,282	1,039,233	1,015,758	1,770,686	42.63%		57.37%
GTE of The South	1,161,033	1,084,540	1,122,787	1,855,064	39.31%	0.17%	60.53%
GTE of The Southwest	1,339,217	1,285,587	1,312,402	2,268,911	41.65%	0.51%	57.84%
Contel of The South dba GTE	116,071	99,539	107,805	186,204	42.10%		57.90%
Contel of Minnesota dba GTE	54,517	59,005	56,761	100,845	43.71%		56.29%
GTE Arkansas, Inc.	70,457	80,832	75,645	151,146	49.95%		50.05%
Aliant Telecommun. Co.	168,271	175,955	172,113	220,533	19.92%	2.04%	78.04%
Rochester Telephone	294,802	352,647	323,725	371,054	12.76%		87.24%
Southern New England Tel	1,276,103	1,256,780	1,266,442	1,969,138	35.69%		64.31%
Sprint - Florida, Inc.	925,800	926,133	925,967	1,453,407	36.29%		63.71%
Carolina Tel & Tel of NC	527,552	534,465	531,009	873,633	39.22%		60.78%
United of the Southeast, Inc.	155,430	163,884	159,657	279,660	42.91%		57.09%
Central-Virginia	140,755	154,139	147,447	260,024	43.29%		56.71%
United Tel of Ohio	281,590	287,349	284,470	473,930	39.98%		60.02%
United Tel of Indiana	101,172	92,997	97,085	158,700	38.82%		61.18%
United Tel of Missouri	155,638	157,426	156,532	284,144	44.91%		55.09%
Central Telephone Co.	1,283,403	1,304,890	1,294,147	1,654,521	21.56%	0.22%	78.22%
United Tel of Texas	91,964	90,707	91,336	154,510	40.89%		59.11%
United Tel of New Jersey	97,421	96,403	96,912	153,854	37.01%		62.99%
United Tel of Pennsylvania	186,731	189,122	187,927	304,167	38.22%		61.78%
United Tel of the Northwest	79,532	89,608	84,570	144,919	41.64%		58.36%
<b>Total Non-RBOCs</b>	<b>17,643,276</b>	<b>17,443,223</b>	<b>17,543,250</b>	<b>29,145,544</b>	<b>39.23%</b>	<b>0.58%</b>	<b>60.19%</b>
<b>TOTAL ILECs</b>	<b>\$71,722,376</b>	<b>\$ 69,570,294</b>	<b>\$ 70,646,335</b>	<b>\$ 123,991,524</b>	<b>42.88%</b>	<b>0.14%</b>	<b>56.98%</b>

\*Source:  
Columns k & l: 1996 and 1997 ARMIS 43-02, Table B-1, Row 440.

**Notes:**

- Citizens Telecom of New York was removed because the data, as reported, indicated an implausibly low of Cost of Debt (0.07%).  
Puerto Rico Telephone Company was removed because the data, as reported, indicated an implausibly high Cost of Debt (54.28%) and the majority of its interest expense related to customer deposits.  
Central Telephone of Illinois was removed because the majority of the company was sold to Ameritech in 10/97.
- United Tel. Of the Northwest, Preferred Stock was deleted from both the industry dividends and the industry 2 year average because dividends could not be calculated in either year.

# U.S. Treasury Yields 1988 - 1998



	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
--- 3-month Treasury Bills	6.69	8.12	7.51	5.52	3.45	3.02	4.29	5.51	5.02	5.07	4.81
..... 3-year Treasury Bonds	8.26	8.55	8.26	6.82	5.3	4.44	6.27	6.25	5.99	6.1	5.14
———— 30-year Treasury Bonds	8.96	8.45	8.61	8.14	7.67	6.59	7.37	6.88	6.71	6.61	5.58

--- 3-month Treasury Bills    ..... 3-year Treasury Bonds  
 ——— 30-year Treasury Bonds

## Appendix D

### Summary of Cost of Capital Decisions of State Commissions In TELRIC and Universal Service Proceedings<sup>1</sup>

Company	State	Cost of Capital Decision
Ameritech	Illinois	9.52%
	Indiana	9.74%
	Michigan	10.60%
	Ohio	9.74%
	Average	9.90%
Bell Atlantic/NYNEX	Delaware	10.28%
	Maryland	10.01%
	Pennsylvania	11.90%
	Virginia	10.16%
	New Hampshire	10.61%
	Maine (adopted N.H.)	10.61%
	Vermont (adopted N.H.)	10.61%
Average	10.60%	
BellSouth	Florida	9.90%
	Louisiana	10.20%
	North Carolina	9.94%
	Tennessee	10.24%
	Average	10.07%
SBS	Missouri	10.03%
	Texas	10.36%
	Average	10.20%
US WEST	Oregon	9.98%
	Washington	9.37%
	Average	9.68%

---

<sup>1</sup>Excludes states that adopted the FCC's 11.25%.

## CERTIFICATE OF SERVICE

I, MICHAEL J. ETTNER, do hereby certify that copies of the foregoing "Direct Case of the General Services Administration" were served this 19<sup>th</sup> day of January, 1999, by hand delivery or postage paid to the following parties:

The Honorable Susan Ness  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Kenneth P. Moran  
Chief, Accounting Safeguards Division  
Federal Communications Commission  
2000 L Street, Suite 812  
Washington, DC 20554

The Honorable Harold Furchgott-Roth  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Richard B. Lee  
Vice President  
Snively King Majoros O'Connor & Lee  
1220 L Street, N.W., Suite 410  
Washington, DC 20005

The Honorable Gloria Tristani  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

International Transcription Service, Inc.  
1231 20th Street, N.W.  
Washington, DC 20036

The Honorable William E. Kennard  
Chairman  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

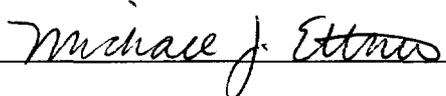
Edith Herman  
Senior Editor  
Communications Daily  
2115 Ward Court, N.W.  
Washington, DC 20037

The Honorable Michael Powell  
Commissioner  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Telecommunications Reports  
11<sup>th</sup> Floor, West Tower  
1333 H Street, N.W.  
Washington, DC 20005

Warren Firschein  
Accounting Safeguards Division  
Federal Communications Commission  
2000 L Street, N.W., Room 257  
Washington, DC 20554

Magalie Roman Salas  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W., TW-A325  
Washington, DC 20554

  
\_\_\_\_\_