HABEN, CULPEPPER, DUNBAR & FRENCH
A PROFESSIONAL ASSOCIATION
ATTORNEYS AT LAW
306 NORTH MONROE STREET
TALLAHASSEE, FLORIDA 32301

BRAM D. E. CANTER
ROBERT S. COHEN
BRUCE CULPEPPER
PETER M. DUNBAR
JOHN FRENCH
RALPH H. HABEN, JR.
R. BRUCE McKIBBEN, JR.
STEVEN T. MINDLIN
DARREN A. SCHWARTZ
NANCY BLACK STEWART
SPECIAL CONSULTANT
KARL R. ADAMS*
*NOT A MEMBER OF THE FLORIDA BAR

REPLY TO:
P.O. BOX 10095
TALLAHASSEE, FLORIDA 32302
TELEPHONE (904) 222-3533
TELECOPIER (904) 222-2126

November 16, 1992

Mr. Steve Tribble, Director
Division of Records and Reporting
Florida Public Service Commission
101 East Gaines Street
Tallahassee, Florida 32399-0850

via Hand Delivery

Re: Southern Bell Rate Case; Docket No. 920260-TL

Dear Mr. Tribble:

Enclosed for filing please find an original and fifteen copies of Florida Cable Television Association's Direct Testimony of Mark A. Cicchetti for the above-referenced docket. You will also find a copy of this letter enclosed. Please date-stamp the copy of the letter to indicate that the original was filed and return a copy to me.

If you have any questions regarding this matter, please feel free to contact me. Thank you for your assistance in processing this filing.

Respectfully,

HABEN, CULPEPPER, DUNBAR
& FRENCH, P.A.

Peter M. Dunbar

Peter M. Dunbar

PMD/tmz
Enclosures

cc: All parties of record

ACK ✓
AFA 3
1
ORIG X 6
1

RECEIVED & FILED
FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE
13476 NOV 16 1992
FPSC-RECORDS/REPORTING

CERTIFICATE OF SERVICE
DOCKET NO. 920260-TL

I HEREBY CERTIFY that a true and correct copy of the foregoing Florida Cable Television Association's Direct Testimony of Mark A. Cicchetti has been served by U.S. Mail on this 16th day of November, 1992, to the following parties of record:

Charles J. Beck
Assistant Public Counsel
Office of the Public Counsel
c/o The Florida Legislature
111 W. Madison St., Rm. 812
Tallahassee, FL 32399-1400

Harris R. Anthony, Esq.
E. Barlow Keener, Esq.
c/o Marshall M. Criser, III
Southern Bell Telephone Co.
150 S. Monroe St., Suite 400
Tallahassee, FL 32301

Richard Melson
Hopping, Boyd, Green & Sams
Post Office Box 6526
Tallahassee, FL 32314

Michael Henry
MCI Telecommunications Corp.
MCI Center
Three Ravinia Drive
Atlanta, GA 30346-2102

Patrick K. Wiggins
Wiggins & Villacorta, P.A.
Post Office Drawer 1657
Tallahassee, Florida 32302

Michael W. Tye
106 East College Ave.
Suite 1410
Tallahassee, FL 32301

Monte Belote
Florida Consumer Action Network
4100 W. Kennedy Blvd. #128
Tampa, Florida 33609

Dan B. Hendrickson
P.O. Box 1201
Tallahassee, FL 32302

The American Association of
Retired Persons
c/o Foley & Lardner
Post Office Box 508
Tallahassee, Florida 32302-0508
Attn: Bill L. Bryant, Jr.

Michael B. Twomey
Assistant Attorney General
Department of Legal Affairs
Room 1603, The Capitol
Tallahassee, Florida 32339-1050

Florida Hotel & Motel Assn.
c/o Thomas F. Woods
Gatlin, Woods, Carlson
& Cowdery
1709-D Mahan Drive
Tallahassee, FL 32308

Douglas S. Metcalf
Communications Consultants, Inc.
1600 E. Amelia Street
Orlando, Florida 32803-5505

Benjamin H. Dickens, Jr.
Blooston, Mordkofsky,
Jackson & Dickens
2120 L Street, N.W.
Washington, DC 20037

Mr. Cecil O. Simpson, Jr.
General Attorney
Mr. Peter Q. Nyce, Jr.
General Attorney
Regulatory Law Office
Office of The Judge
Advocate General
Department of the Army
901 North Stuart Street
Arlington, VA 22203-1837

Edward Paschall
Florida AARP Capital City
Task Force
1923 Atapha Nene
Tallahassee, FL 32301

Joseph P. Gillan
J.P. Gillan & Associates
Post Office Box 541038
Orlando, FL 32854-1038

C. Everett Boyd, Jr.
Ervin, Varn, Jacobs, Odom,
& Ervin, P.A.
Post Office Drawer 1170
Tallahassee, FL 32302

Mr. Lance C. Norris, President
Florida Pay Telephone
Association, Inc.
Suite 202
8130 Baymeadows Circle, West
Jacksonville, FL 32256

Robin Norton
Division of Communications
Florida Public Service Comm.
101 East Gaines Street
Tallahassee, FL 32399

Angela Green
Division of Legal Services
Florida Public Service Comm.
101 East Gaines Street
Tallahassee, FL 32399

Charlotte Brayer
275 John Knox Rd., EE 102
Tallahassee, FL 32303

Doug Lackey
BellSouth Telecommunications,
Inc. (Southern Bell Telephone
& Telegraph Company)
4300 Southern Bell Center
Atlanta, GA

Rick Wright
AFAD
Florida Public Service Comm.
101 East Gaines Street
Tallahassee, FL 32301

Chanthina R. Bryant
Sprint
3065 Cumberland Circle
Atlanta, GA 30339

Laura L. Wilson, Esq.
Messer, Vickers, Caparello,
Madsen & Lewis, P.A.
Post Office Box 1876
Tallahassee, FL 32302-1876

Vicki Gordon Kaufman, Esq.
Lawson, McWhirter,
Grandoff & Reeves
522 East Park Ave., #200
Tallahassee, FL 32301

By: Peter M. Dunbar
PETER M. DUNBAR

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Comprehensive Review of the Revenue Requirements and Rate Stabilization Plan of Southern Bell Telephone and Telegraph Company	Docket No.: 920260-TL Filed: November 16, 1992

DIRECT TESTIMONY

OF

MARK A. CICCHETTI

FOR

FLORIDA CABLE TELEVISION ASSOCIATION

DOCKET NO. 920260-TL

TESTIMONY OF MARK ANTHONY CICCHETTI

Q Please state your name and address.

A My name is Mark Anthony Cicchetti and my business address is 4500 Shannon Lakes Plaza, Suite 152, Tallahassee, Florida 32308.

Q By whom are you employed and in what capacity?

A I am President of Cicchetti & Company, a financial research and consulting firm. I am also employed by the Division of Bond Finance, Florida State Board of Administration, where I am the Chief of the Bureau of Arbitrage Compliance.

Q Please outline your educational qualifications and experience.

A I received a Bachelor of Science degree in Business Administration in 1980 and a Master of Business Administration degree in Finance in 1981, both from Florida State University.

Upon graduation I accepted a planning analyst position with Flagship Banks, Inc., a bank holding company. As a planning analyst my duties included merger and acquisition analysis, lease-buy analysis, branch feasibility analysis, and special projects.

In 1983 I accepted a regulatory analyst position with the Florida Public Service

Commission. As a regulatory analyst, I provided in-depth analysis of the cost of equity and required overall rate of return in numerous major and minor rate cases. I reviewed and analyzed the current and forecasted economic conditions surrounding those rate cases and applied financial integrity tests to determine the impacts of various regulatory treatments. I also co-developed an integrated spreadsheet model which links all elements of a rate case and calculates revenue requirements. I received a meritorious service award from the Florida Public Service Commission for my contributions to the development of that model.

In February 1987, I was promoted to Chief of the Bureau of Finance. In that capacity I provided expert testimony on the cost of common equity, risk and return, corporate structure, capital structure, and industry structure. I provided technical guidance to the Office of General Counsel regarding the development of financial rules and regulations. In addition, I authored the Commission's rules regarding diversification, chaired the Commission's committee on leveraged buyouts, supervised the finance

bureau's regulatory analysts, co-developed and presented a seminar on public utility regulation for the Florida Public Service Commission attorneys, and provided technical expertise to the Commission in all areas of public utility finance for all industries.

In February 1990 I accepted the position of Chief of Arbitrage Compliance in the Division of Bond Finance, now under the State Board of Administration, State of Florida. As Chief of the Bureau of Arbitrage Compliance, I am responsible for assuring that over $12 billion of State of Florida tax-exempt securities remain in compliance with the federal arbitrage requirements enacted by the Tax Reform Act of 1986. I provide investment advice to trust fund managers on how to maximize yields while remaining in compliance with the federal arbitrage regulations. I designed and implemented the first statewide arbitrage compliance system which includes data gathering, financial reporting, and computation and analysis subsystems.

In July 1990 I founded Cicchetti & Company. Through Cicchetti & Company, I provide financial research and consulting services,

including the provision of expert testimony, in the areas of public utility finance and economics.

I have been certified by the Florida Public Service Commission as a Class B Practitioner in the areas of finance and accounting.

In June, 1985 I published an article in Public Utilities Fortnightly titled "Reconciling Rate Base and Capital Structure: The Balance Sheet Method." In September, 1986 I was awarded third place in the annual, national, Competitive Papers Session sponsored by Public Utilities Reports, Inc., in conjunction with the University of Georgia and Georgia State University, for my paper titled "The Quarterly Discounted Cash Flow Model, the Ratemaking Rate of Return, and the Determination of Revenue Requirements for Regulated Public Utilities." An updated version of this paper was published in the June, 1989 edition of the National Regulatory Research Institute Quarterly Bulletin.

I am the President, and member of the Board of Directors, of the National Society of Rate of Return Analysts (NSRRA) and a member of the Financial Management Association. I have been awarded the designation Certified Rate of Return Analyst by the NSRRA. I am listed in Who's Who in

Finance and Industry.

I have served twice as a referee for the Competitive Papers Sessions sponsored by Public Utilities Reports, Inc., the University of Georgia, and Georgia State University. I have made public utility and finance related presentations to various groups such as the Southeastern Public Utilities Conference, the National Society of Rate of Return Analysts, the National Association of State Treasurers, and the Government Finance Officers Association.

Q Have you previously testified before this Commission?

A Yes, I have.

Q What is the purpose of your testimony?

A The purpose of my testimony is to address two subject areas. The first area is the determination of an appropriate incentive regulation plan for the Southern Bell Telephone and Telegraph Company of Florida (Southern Bell) which will include an overview of the company's current and proposed incentive regulation plans. The incentive regulation plan I am proposing relates to the basic services associated with Southern Bell's regulated local exchange service, defined as

residence and business exchange service, service connection charges, and switched access. The second area is the appropriate return Southern Bell should be allowed for ratemaking purposes. With regard to the second subject area I will specifically address the determination of the cost of common equity capital and an appropriate equity ratio for Southern Bell.

Q Please summarize your conclusions.

A With respect to an appropriate incentive regulation plan for Southern Bell, I present an incentive plan that ties the company's reward to specific company actions to improve production efficiency. In my opinion, such a plan provides a proxy for the economic profits, that is profits above a company's cost of capital, that can be earned in a competitive environment if a company is efficient or innovative.

With respect to an appropriate allowed return, I conclude the cost of common equity capital for Southern Bell is within the range of 10.90% to 11.50% and I recommend the Commission allow the midpoint of this range, 11.20%, for ratemaking purposes. With respect to an appropriate equity ratio I conclude Southern Bell's equity ratio

should be set at 58.00% of investor capital. My recommended allowed overall rate of return is 8.09%.

INCENTIVE REGULATION

Q Please discuss the need for an incentive regulation plan.

A It is generally accepted that public utility regulation, as it is commonly practiced, lacks a formal proxy for the economic profits, that is earnings above a firm's cost of capital, that can be earned in a competitive market if a firm is efficient or innovative. This is because public utility regulation, as it is commonly practiced, operates on cost-plus basis. If a utility is efficient or innovative and lowers its costs, the reward it generally can look forward to is to have its rates reduced to recognize its lower costs. Such treatment represents a perverse incentive with regard to motivating a utility to produce at the most efficient level. Additionally, since public utility regulation generally operates on a cost-plus basis, a utility can increase the dollar amount of its net income, all other things being equal, by overinvesting in or "gold-plating" its system - another perverse incentive.

Recognizing these inherent flaws to the regulatory model as it is generally applied, academicians, utility executives, regulators, and legislators have endeavored over the last several years to implement incentive regulation plans to correct the perverse incentives. The remainder of my testimony with regard to an incentive regulation plan for Southern Bell will address: 1.) why Southern Bell's current and proposed incentive regulation plans are not the best solution to the problem of providing an incentive for efficient production; 2.) how they can be detrimental to ratepayers and competitors of Southern Bell and its affiliates, and; 3.) a more appropriate incentive regulation plan that rewards a utility for operating in an efficient manner will be presented.

Q Why are Southern Bell's current and proposed incentive regulation plans not the best solution to the problem of providing an incentive for efficient production?

A Under Southern Bell's current and proposed incentive regulation plans, the rewards for efficient production are not directly tied to measures under the company's control. Under the company's current earnings sharing plan, which was

initially scheduled to run for three years, the company had the opportunity, after sharing, to earn up to 16% on common equity. Although certain exogenous factors (such as refinancing from higher to lower cost long-term debt, and major technological changes) were removed from the sharing formula, it is obvious that events such as a reduction in the company's cost of equity, declining production costs, or a booming economy could have produced returns to the company significantly above their cost of capital without an associated company controlled improvement in efficiency. Such a scenario engenders monopoly profits as the solution to the monopoly profits problem - the reason why the company is regulated to begin with.

Under the company's proposed price regulation plan, the same result could occur through price manipulation. Even though the price regulation plan includes a productivity offset, it also includes an inflation factor that could have the effect of offsetting the productivity factor if the company is operating in a declining cost environment. Furthermore, the 4% productivity factor could prove to be either much too high or

much too low.

Finally, under both the current plan and Southern Bell's proposed plan, the company faces the same type of perverse gold-plating incentive at the sharing points and the top of the allowed sharing range, that it faces under traditional regulation.

Therefore, an incentive regulation plan that ties an appropriate reward for efficient production to specific efficiency gains is a better proxy of a purely competitive environment and is superior to an incentive plan that provides a reward for circumstances beyond the company's control or for self-serving manipulation. This is particularly true if there is no earnings cap associated with the reward for efficiency and therefore no incentive to gold-plate rather than economize.

Q In your previous answer you referred to price manipulation. Are you taking a position with regard to the appropriateness of pricing flexibility for any given product or service?

A No. My only purpose in citing price manipulation was with regard to incentives for efficient production. Rewards for efficient

production should be tied to specific actions that achieve efficiencies. An appropriately derived efficiency incentive does not preclude appropriately derived flexible prices where warranted.

Q How can Southern Bell's current and proposed incentive regulation plans be detrimental to ratepayers and competitors of Southern Bell?

A In order to understand how Southern Bell's current and proposed incentive regulation plans can be detrimental to ratepayers and competitors of the company and its affiliates, it is necessary to have an understanding of the effect market structure has on a firm's return on common equity.

Q What is market structure?

A Market structure refers to the range of conditions, such as the number of firms, the economies of scale or scope, the type of product sold, and the demand for that product that may effect the behavior and performance of firms in that market. Market structure is best thought of as a continuum between pure competition and natural monopoly. Purely competitive markets are characterized by minimal economies of scale or

scope such that no single supplier has a natural cost advantage over other suppliers. In the short run, under effectively competitive conditions, a firm can earn economic profits, that is a return above its cost of capital, only if it is efficient or innovative. In the long run, under effectively competitive conditions, a firm cannot earn above its cost of capital due to the ease of entry and exit to and from the market. If a firm in an effectively competitive environment is earning above its cost of capital, new firms will enter the market to share in those profits. Another way to look at it is to recall that the long term in economics is defined as the period of time necessary to change production processes. Consequently, in the long run, a firm's competitors will match its efficiency by changing their production processes.

Natural monopoly markets are characterized by substantial economies of scale or scope and decreasing average costs such that one supplier can always serve the market at lower unit costs than two or more suppliers. Under such a scenario, barriers to entry are severe since the single most efficient provider will always be able

to price below any potential entrant. Left unregulated, a natural monopoly will not produce competitive results. Assuming an industry is a natural monopoly, regulation benefits society by reducing price, increasing output, and reducing the economic profits of monopolies. Regulators accomplish this by backing away from the objectives of allocative efficiency and marginal cost pricing and instead, establish a "fair-return" price. Although this treatment does not produce socially optimum price and output, it is, from a social point of view, an improvement over an unregulated natural monopoly.

Q Why do regulators back away from the objective of allocative efficiency and marginal cost pricing?

A Because utilities are required to meet the peak demand for their products or services, they generally have significant excess capacity during periods of normal demand. This high level of investment in facilities means unit costs of production will likely decrease over a wide range of output. This situation results in the socially optimum price being below average cost. Pricing at this level would likely result in bankruptcy.

Therefore, regulators set a "fair-return" price which allows a utility to recover the reasonable and prudent costs associated with the provision of utility service, which includes an appropriate return on common equity.

Q Would you please tie the foregoing discussion to how Southern Bell's current and proposed incentive regulation plans can be detrimental to its ratepayers and competitors?

A Certainly. The cost and demand functions associated with the provision of local exchange service continue to exhibit the characteristics of natural monopoly. Very large fixed investments are necessary to provide local exchange service to large populations of customers and the obligation to serve does not allow free exit. Additionally, there are no practical alternatives to the local exchange companies for basic telephone service at this time. This is in contrast to certain other telecommunications markets where technological advances have lowered costs to the point that at least several firms of efficient size can compete to supply the needs of high volume customers. Consequently, adequate protection for Southern Bell's ratepayers and competitors requires that

Southern Bell's profits associated with the provision of basic monopoly services be sufficiently constrained by either effective competition or adequate regulation. Allowing a monopoly provider the opportunity to earn 16% on common equity capital, as is possible under Southern Bell's current and proposed incentive regulation plans, potentially for reasons beyond the company's control, when its cost of capital is significantly below 16%, is not in the best interest of ratepayers. For Southern Bell, at a cost of common equity of 11.20%, the revenue effect associated with an earned return on common equity of 16% is approximately $165 million per year, given the company's requested capital structure, and the earnings impact is approximately $100 million per year. Obviously, allowing Southern Bell the opportunity to generate approximately $165 million per year from ratepayers (and consequently earn approximately $100 million per year) that it may have no right to (that is, for reasons beyond the company's control), in the name of incentive regulation is of great concern to ratepayers and competitors of Southern Bell and its affiliates. A more appropriate incentive regulation plan would

provide a proxy for the economic profits that could be earned by a firm in a competitive environment and would be tied directly to actions taken by the company to increase production efficiency.

Q In your opinion, do Southern Bell's current and proposed incentive regulation plans meet the criteria specified in Florida Statute 364.036?

A In my opinion they do not. F.S. 364.036 requires, among other things, that the Commission find that alternative regulatory methods: 1.) are consistent with the public interest; 2.) that rates for monopoly services are just and reasonable, and not unduly discriminatory, and do not yield excessive compensation; 3.) that there are adequate safeguards to assure that the rates for monopoly services do not subsidize competitive services, and; 4.) that there are identifiable benefits to ratepayers not available under traditional rate of return regulation.

In my opinion, an incentive regulation plan that potentially allows a regulated monopoly supplier to generate $165 million per year above its cost of capital for reasons not related to specific efficiency gains is not in the public

interest, yields excessive compensation, and provides a source of funding to subsidize competitive services that would not be available if the company operated in an effectively competitive environment. It is generally accepted that regulation is to act as a proxy for competition.

Finally, F.S. 364.036 (5) states:

> The Commission may at any time, on its own motion or on petition of the local exchange telecommunications company or any interested party, and may upon being presented with and considering competent substantial evidence that customer rates for basic local exchange telecommunications services exceed levels which would otherwise be approved by the Commission under rate of return regulation or for other good reasons, review any decision adopting an alternative method of regulation and, after notice and opportunity to be heard, impose additional regulatory safeguards including full rate base regulation under the provisions of this chapter.

Q What are the elements of the incentive

regulation plan that you propose?

A First, the Commission would determine the company's per access line cost of providing basic local exchange service based on the amount invested (rate base), O&M expenses (net operating income), and the capital costs associated with the amount invested(cost of capital). These amounts should be company reported costs and not commission allowed costs, keeping in mind the Commission has the option of selecting exactly which costs it would like to target to provide an incentive for efficiency. Next, the Commission would create a regional (state, national) rural/urban index of similar costs for the local exchange providers serving the designated area. Finally, the Commission would determine what percentage of cost savings the company would receive if the company produced at a cost below the average cost of the index. It should be noted, such an index could be created for each industry under the Commission's jurisdiction and the concept applied to all companies under the Commission's jurisdiction since all regulated firms face the same perverse regulatory incentives previously cited.

Q Could the Commission account for factors

unique to a particular firm?

A Yes. The Commission would have the ability to adjust the index or the company's results for exogenous factors where warranted. For example, years ago Florida Power and Light's tree trimming expense was questioned because it was high relative to other electric utilities. An analysis of the issue revealed that FP&L was the only electric utility in the continental United States operating in a subtropical environment and that trees in its service area did, in fact, grow at a faster rate, requiring a greater amount of tree trimming expense. Such factors could be adjusted for where warranted.

Q In what other ways is your proposed incentive plan superior to Southern Bell's current and proposed incentive plans?

A Under the incentive regulation plan I am presenting there would be no earnings cap associated with earnings stemming from cost savings and therefore, no motivation to "gold-plate" rather than economize. There would be less likelihood of unwanted results relative to Southern Bell's current and proposed plans, such as sales scams, because the reward is tied directly to efficiency

gains and is not tied to revenue production as are Southern Bell's current and proposed incentive regulation plans. Additionally, industrywide costs and productivity improvements, including those associated with technological advances would be reflected in the regional (state, national) index, eliminating the need for inflation and productivity offsets. Unregulated industries experience technological gains and productivity improvements; and, in order for a firm facing effective competition in an unregulated industry to earn economic profits, it must be especially efficient or innovative relative to its competitors. Therefore, the plan I am proposing is a better proxy of the competitive environment than the incentive regulation plan in place or the one proposed by Southern Bell.

Q Have recent regulatory changes made your proposed regulatory incentive plan more feasible today than it would have been five or ten years ago?

A Yes. Relatively recent regulatory decisions that have allowed entry into markets where it was assumed that technological advances have reduced or eliminated the natural monopoly

aspects of the particular market have made regulated utilities keenly aware of economic and uneconomic bypass.

Economic bypass occurs when a regulated utility's product or service can be provided more efficiently by a competitor. The gains associated with bypass through trade between the customer and the utility's competitor are preserved by society because the customers' demands are met by the lowest cost provider. Assuming a regulated utility is operating in a natural monopoly market and its prices are set appropriately (that is, not above the reasonable and prudent costs associated with providing service and, at a minimum, not below long-run incremental cost), economic bypass could not occur.

Uneconomic bypass occurs when the customers' needs could be more efficiently met by the regulated utility supplier, but the regulated firm's price is higher than a competitor's price because, for example, the utility's price reflects inefficiencies or is set at a point above its true cost. Under such a scenario, the customer will seek to bypass the regulated firm's excessive price.

In my opinion, the combination of competitors or potential competitor's ready to attack inefficient prices, in combination with an appropriate incentive for specific production efficiencies, makes the plan I am presenting more feasible today than it would have been before the recent regulatory evolution of allowing entry into markets considered contestable.

RATE OF RETURN

Q What guiding principles did you consider in determining a fair rate of return for Southern Bell?

A I relied on the principles established by the Supreme Court of the United States in Bluefield Waterworks and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679 (1923) and Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591 (1944). Briefly stated, the Hope and Bluefield decisions provide that the return to the equity owner should be commensurate with returns on investments having corresponding risks and should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and attract capital.

Q Please define the cost of common equity

capital.

A The cost of common equity capital is the minimum rate of return necessary to attract capital to a common equity investment. The cost of common equity is a function of risk. The greater the risk the greater the return investors require.

Q What risks do common equity investors face?

A A stock's risk consists of company specific risk known as diversifiable risk and market risk known as non-diversifiable risk. Company specific risk is caused by events that are unique to a particular firm such as the loss of a major customer, strikes, lawsuits, and so on. Since these things occur randomly, their effects can be eliminated through diversification - negative events at one firm will be offset by positive events at another. Market risk, on the other hand, is associated with events that affect all firms simultaneously such as inflation, war, and recession. Since all firms are affected simultaneously, the effect of these events cannot be eliminated through diversification. Therefore, since we assume investors are risk averse (that is, accept the highest return for a given level of risk

or accept the lowest level of risk for a given return), the relevant risk of a stock is the risk that cannot be diversified away. Rational investors do not accept risks that can be easily eliminated. Numerous empirical studies have shown the capital markets are efficient and investors are compensated only for risks that cannot be diversified away. Therefore, the relevant risk of a stock is the risk it contributes to a well-diversified portfolio and is measured by beta. Beta ia a measure of a stock's volatility relative to an average stock. A beta of 1.0 indicates that the individual stock's return moves up or down in the same proportion as the market return. A beta above or below 1.0 indicates higher or lower return volatility, and therefore greater or lesser risk, relative to the market as a whole.

Q What determines the relevant risk of a stock?

A The relevant risk of a stock is determined by the degree to which the stock tends to move up and down with the market. The relevant risk facing a common equity investor can be disaggregated into business risk and financial risk. Business risk relates to the uncertainty

surrounding the level of operating income expected to be earned, while financial risk relates to the types of securities used to finance the firm, that is, financial leverage. It is generally accepted that companies with high business risk should capitalize their operations with a relatively lower amount of debt and fixed obligations.

Q What general economic factors influence investment decisions?

A The interrelated factors of inflation and interest rates are major factors that influence the investment decision-making process.

Q Of what significance are inflation and interest rates to an investor?

A Interest rates are important to investors because the required return on an investment is affected by the returns available on alternative investments. Additionally, rising inflation and rising interest rates erode earnings. Public utilities in general are particularly sensitive to the effects of high inflation and high interest rates. As with other industries, rising labor and other operating expenses directly impact public utility companies' earnings. Also, due to the capital intensive nature of the public utility

industries, plant costs and related financing costs have a particularly strong impact on the earnings of these companies.

However, the impacts associated with inflation and interest rates currently are less for Southern Bell than they have been in the past. Not only are inflation and interest rates down substantially but Southern Bell has been able to internally finance most of its capital expenditures despite paying out virtually all of its earnings as dividends to its parent company.

Q Have you examined changes in inflation rates?

A Yes. As shown on Schedule 1, inflation as measured by the consumer price index has subsided considerably over the last several years and is expected to be approximately 3.2% over the coming year according to the November 1, 1992 Blue Chip Financial Forecasts' consensus forecast. The core consumer price inflation (CPI minus the volatile food and energy components) dropped to 2.6% over the last six months and is expected to continue around that low rate over the next several years. High unemployment, continued global competition and slow money growth are factors

contributing to the expectations of low inflation.

Page 1 of Schedule 1 is a graph of inflation as measured by the Consumer Price Index and page 2 of the schedule graphs the five-year moving average of the annual change in the Consumer Price Index. Page 3 of the attachment provides the statistical data.

Q Have you examined changes in interest rates?

A Yes. Page 1 of Schedule 2 is a graph of yields on seasoned "A" rated public utility bonds while Page 2 of the schedule charts the five-year moving average of the bond yields. Page 3 provides the statistical data.

It should be noted that recent and current economic statistics do not provide a complete basis for determining the value of long-term investments. Rather, they only provide insight into the current environment within which long-term assets are being valued and function as a reference point for past and present forecasts.

Q Please discuss the current economic environment and current expectations regarding inflation and interest rates.

A As the U.S. economy winds its way through

the fourth quarter, both consumers and industry remain mired in economic and political uncertainty. Many see President-elect Clinton's victory as a mandate to stimulate the economy and provide jobs. However, two major policy questions that face the Clinton Administration are 1.) How much fiscal stimulus should be applied to the economy? and 2.) How will that stimulus be balanced against the need to reduce the stifling federal deficit? The answers to these questions likely will define the course of the American economy over the next several years.

As has been widely reported, the U.S. consumer has been conspicuously absent from the current economic recovery. Surveys indicate the U.S. consumer remains largely sidelined by continued fears about job security and personal finances. During August, consumer credit contracted by $1 billion, and is now 2.1% below its 1990 peak. In the absence of significant employment or income growth, consumers, much like corporate America, have been extinguishing debt and strengthening balance sheets since the onset of the recession in mid-1990 and throughout the subsequent anemic recovery.

The U.S. economy, as measured by the gross domestic product, jumped a surprising 2.7% in the third quarter of 1992. This burst of activity surprised economists who had generally estimated a growth rate more comparable to the meager 1.5% pace of the second quarter. However, one-half of the rise in output was associated with inventory accumulation and not sales. It is expected that this inventory accumulation will depress fourth quarter growth, which is now expected to be only 1% on an annual basis. Nevertheless, output is now above the highpoint reached before the onset of the recession in 1990. However, as economists note, it took eight consecutive quarters of economic growth to reach this point, making this the slowest recovery since the Great Depression. Perhaps even more surprising than the unexpected burst of activity is the fact that much of the strength of the third quarter came from the beleaguered American consumer. Consumer spending rose 3.4% in the third quarter, after falling 0.1% in the second quarter, and encompassed both durable and nondurable goods. Given that consumer spending accounts for roughly two thirds of economic activity, this is a crucial element of economic

growth. However, as discussed above, without meaningful growth in employment or income, analysts doubt this pace can be sustained.

The continued pessimism of the American consumer is further illustrated by the latest consumer confidence survey which shows consumer confidence has fallen to its lowest level since February and is approaching recession related levels. In addition, the latest survey shows the availability of jobs is the consumers main concern. Reinforcing this notion is the fact that employment remains below its pre-recession peak.

Q Please continue.

A U.S. exports, previously one of the few bright spots of the nascent U.S. recovery, took a significant turn for the worse in August. The year-to-date merchandise trade balance rose to almost $52 billion in August, 21% wider than that recorded during the first eight months of 1991. The August shortfall of approximately $9 billion was dominated by a 6.1% plunge in exports, reflective of weakening global demand.

Home construction climbed 1.4% in September following a 12.6% increase in August. With U.S. exports now sputtering, home construction

appears to be an almost singular area of growth. However, given that construction activity has been largely the result of low interest rates, construction activity is extremely vulnerable to any increase in those rates.

On the price front, inflation remains subdued as it has for much of the last two years. Producer prices rose a modest 0.3% in September. Although the 0.3% increase is the largest since April, the core PPI rate rose a more moderate 0.2%. Similarly, consumer prices rose a mere 0.2% in September, the fifth consecutive 0.2% increase. Furthermore, inflation, on a year-over-year basis, as measured by the implicit price deflator, is at its lowest level since 1964.

As was widely discussed during the recent presidential campaign, the federal budget deficit has risen to record levels in 1992. The budget deficit for fiscal 1992, which ended September 30, was approximately $290 billion, exceeding the previous fiscal year's record of $269 billion. The continuing enormous size of the budget deficit, aside from representing a threat to the American standard of living, largely has hamstrung fiscal policy during the course of the current recession

and recovery. The potentially crippling effect of sole reliance on monetary policy clearly is illustrated by the current economic conditions. The economy has failed to respond meaningfully to the twenty-five consecutive interest rate cuts initiated by the Fed, despite the fact the current low level of interest rates has not been seen since the 1960's.

As 1992 draws to a close, it appears the American consumer remains a victim of the global winds of change which, previously having battered "smokestack America", moved on to the service sector. The result has been unprecedented waves of restructuring which have resulted in thousands of seemingly permanent white and blue collar job losses. Global competition has made American industry leaner and more competitive but, at the same time, has dealt a severe blow to the historically resilient American psyche. Job and income growth remain the keys to future economic growth, but finding the correct buttons to push, in an increasingly complex and intertwined global economy, has become an exceedingly difficult task.

The future course of the economy and of inflation is difficult to predict. However, a

component of required yields is compensation for expected inflation, the level of which directly impacts the cost of both debt and equity. The current Blue Chip consensus forecast for the bellwether long-term treasury bond for the coming year is 7.60% and the current Blue Chip forecast for the consumer price index for the coming year is 3.2%.

Q Previously, you mentioned increased competition in the telecommunications industry. Could you please expound on the effect increased competition has on Southern Bell's cost of common equity?

A Yes. The effects of increased competition on Southern Bell's cost of common equity must be put in proper perspective. Competition in the telecommunications industry is followed closely by investors and analysts and its impacts and expected impacts are reflected in the stock prices of the telecommunications companies. Additionally, increasing competition represents both challenges and opportunities to these companies. The position of strength from which the Regional Bell Holding Companies (RBHC's) operate should not be ignored. Over the last five years

the RBHC's have implemented new technology, automated many previously labor intensive tasks, added fiber loops in large cities, cut operating costs, and markedly increased operating margins. It is also recognized that regulation in general has improved and become more permissive. For example, regulators have allowed such things as incentive regulation plans, pricing flexibility, and entry into information services. It is true that local exchange companies are facing increased competition but whether there ever will be meaningful competition within the local loop is still uncertain and is years away at best. Consequently, ratepayers and competitors must be protected adequately from monopoly behavior. In conclusion, investor expectations and the impacts of competition and expected competition are reflected in current stock prices and therefore accounted for in a market based cost of equity analysis.

Q Please describe Southern Bell.

A Southern Bell is a large, conservatively financed, local exchange company with over 4.7 million access lines serving Florida. The Company provides local exchange service, information

access, exchange access, and intra-LATA long distance telecommunications. The Company operates in one of the fastest growing service territories in the country and internally funds almost all of its construction expenditures. As of midnight December 31, 1991 South Central Bell and Bellsouth Services were merged with and into Southern Bell (which included Southern Bell Telephone and Telegraph Company of Florida) and the new entity was renamed Bellsouth Telecommunications, Inc.

As shown on Schedule 13, Southern Bell compares favorably financially with the other Bell Operating Companies (BOCS). Southern Bell's total debt to total capital (37.2%) ratio is better than the 40.1% BOC average, while Southern Bell's pretax interest coverage (4.53X) ratio is only somewhat lower than the 5.06 average for the BOCs. Southern Bell's return on average equity (14.43% including the return on investment tax credits, 13.63% excluding the return on investment tax credits) is just slightly lower than the BOC average of 14.9%. The company's percentage of internal funds to construction expenditures (114%) is also above the BOC average.

Q Have you examined the equity ratio of

Southern Bell?

A Yes, I have.

Q In your opinion, should Southern Bell's equity ratio be reduced for ratemaking purposes?

A Yes.

Q Why do you believe Southern Bell's equity ratio should be reduced for ratemaking purposes?

A It is important that regulators ensure that ratepayers do not subsidize, through a utility's cost of capital, the costs associated with non-utility investments made by the utility, its parent, or affiliates. This can be accomplished by ensuring that only the reasonable and prudent costs associated with the provision of utility service are charged to ratepayers. Generally, when attempting to prevent cross-subsidization between utility and non-utility affiliates, regulators tend to concentrate on costs such as the allocation of common plant or other shared assets and expenses. However, significant cross-subsidization between utility and non-utility affiliates can occur if a regulator allows a company a rate of return above the required return or allows rates to be set using an equity ratio above the level required to allow the utility to

maintain its financial integrity. Additionally, utilities can manipulate their revenue requirement and their earnings level through changes to their equity ratio. Recognizing this problem, the FCC in Order 90-315, used a hypothetical capital structure consisting of 44.2% debt and 55.8% equity in the docket "Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers". In its order the FCC stated:

> We find that the capital structure of the BOC's should not be used in determining the overall interstate cost of capital because the capital structure of those entities is subject to manipulation by the holding companies.

In a purely competitive environment it would not be possible for a firm to increase its price above the market rate in one market to subsidize a price in another market. However, in a regulated environment, regulators are a proxy for competition. Therefore, as the Regional Bell Holding Companies and Bell operating companies enter more non-regulated lines of business it

becomes even more important to ensure ratepayers only bear the reasonable and prudent costs associated with the provision of utility service. As shown on Schedule 13, the RBHC's percentage of revenue from lines of business other than local, toll, and access has increased to approximately 23% today from approximately 14% in 1988.

As shown on Schedule 12, Bellsouth has the lowest total debt to total capital ratio of the RBHC's at 41.9% indicating an equity to total capital ratio of 58.1%. As shown on Schedule 12, Southern Bell has a total debt to total capital ratio of 37.2% indicating an equity to total capital ratio of 62.8%, and the company is asking for an equity ratio of 62.34% in this docket. As shown in Standard and Poor's Creditreview dated February 10, 1992, Bellsouth Telecommunications, Inc. has an equity to total capital ratio of 61.2%. This indicates Bellsouth Corp's risky, non-regulated ventures, in total, are not financed with more equity than the less risky regulated telephone operations of Bellsouth Telecommunications Inc. and Southern Bell, signifying reliance on the local exchange companies for credit support by the parent corporation.

Schedule 10 shows Standard and Poor's financial benchmarks for local exchange companies. As shown on Schedule 10, the total debt to total capital benchmark for a AA local exchange company is "under 42%". As shown on Schedule 13, Southern Bell's total debt to total capital is 37.2%, significantly under that required for a AA rated local exchange company. In my opinion, Southern Bell has not justified its need for such a costly capital structure. Ratepayers should not have to bear the added costs of unnecessarily high equity ratios that are needed by the local exchange company's parent or affiliates to provide credit support for leveraged investments in risky operations.

Based on the reasons stated above: 1.) ratepayers should pay only the reasonable and prudent costs associated with the provision of utility service; 2.) a utility's equity ratio should be reasonable and allow the Company to attract capital at a reasonable cost; 3.) increased investment by Southern Bell's affiliates into non-regulated lines of business; 4.) the ability of the Company to manipulate its equity ratio to the detriment of its ratepayers and competitors and to

the benefit of itself and its affiliates; 5.) the fact that Southern Bell's equity ratio is above the industry average and well above the minimum requirement inherent in Standard and Poor's total debt to total capital benchmark for a AA rated local exchange company; 6.) it appears Southern Bell's riskier affiliates have not been financed with more equity indicating reliance on the local exchange company for credit support and; 7.) the company has not justified the need for such a costly capital structure: I recommend Southern Bell's equity ratio be set at 58% of investor capital for ratemaking purposes. An equity ratio of 58% is the minimum requirement inherent in Standard and Poor's total debt to total capital financial benchmark for a AA rated local exchange company.

Q What methods did you use to determine the required return on common equity for Southern Bell?

A To determine the required return on common equity, I used a two-stage, annually compounded discounted cash flow (DCF) model and a risk-premium analysis.

It is important to note that estimating the cost of common equity is a subjective

procedure. It is impossible to measure it precisely and it is generally estimated within a range. The cost of common equity is a function of investor expectations and it is impossible to know all investors' expectations at any point in time. Consequently, professional judgment must be exercised when determining proxies for investor expectations. When analyzing cost of equity estimates, it is important to understand the rationale underlying the subjective inputs and how well the models relied upon reflect reality.

Q How did you apply the DCF and risk premium models to obtain Southern Bell's cost of common equity?

A I conducted a DCF analysis on the index of Regional Bell Holding Companies and I conducted a risk premium analysis on Moody's Natural Gas Distribution Index.

Relying on an index of companies, rather than a single company, helps minimize forecasting errors and should provide more reliable information for use in measuring the cost of common equity.

In my judgement, a proxy for the regional Bell holding companies (RBHCs) must be used in the risk premium study because the RBHCs

have only been in existence since 1984. In my opinion, there is insufficient data regarding the RBHCs to do a valid risk premium study using RBHC data. I believe it is reasonable to use the natural gas distribution index in the risk premium study as a proxy for the telecommunications industry since both industries face competition, bypass, and non-cost based pricing while continuing to be subject to regulation.

Q Please describe the investment risk characteristics that comprise your indices.

A The investment risk parameters for the index of Bell companies are: a Value Line Safety Rank of 1, a Value Line beta of .82, an S&P and Moody's bond rating of AA-/Aa2, and an average equity ratio of 59.3% of investor capital, excluding short-term debt.

The investment risk parameters for Moody's Natural Gas Distribution Index are: a Value Line Safety rank of 1.6, a Value Line beta of .63, and an average equity ratio of 51.9% of investor capital, excluding short-term debt. Schedule 3 and 4 provide the investment risk characteristics for the indices.

Q Please briefly describe the models you

used.

A The discounted cash flow model is the most commonly used market based approach for estimating a utility investor's required return on common equity capital. In a DCF analysis, the cost of equity is the discount rate which equates the present value of expected cash flows associated with a share of stock to the present price of the stock.

A risk premium analysis recognizes that equity is riskier than debt. Equity investors thus require a "risk premium" over the cost of debt as compensation for assuming additional risk.

Q Please provide the equation and define the terms for the discounted cash flow model.

A This information is provided on Schedule 5. Inherent in this basic model are several simplifying assumptions: (1) dividends are paid annually and grow at a constant rate; (2) the price, P_o, is determined on a dividend payment date; and (3) dividends increase once a year starting exactly one year hence.

Q Is Equation (4), Schedule 5, the DCF model you used to determine the cost of common equity capital?

A No, it is not. As mentioned above, the basic DCF model assumes that dividend growth rate is constant over time. If, however, the future growth rate is expected to change, a two-stage or variable growth rate model should be used. I have relied on a two-stage variable growth rate model in order to use the specific dividend forecasts for the next five years provided by Value Line. Equation (5) on Schedule 5 shows a two-stage DCF model. In the two-stage model, dividend growth is estimated on an individual basis for an initial growth period. After the initial period, dividends are assumed to grow into perpetuity at the expected long-term growth rate.

Q How did you use this model to determine the cost of common equity capital for the index?

A The current stock price (P_o) was determined by averaging the high and the low stock price for October 1992 for each company. I assumed an initial growth period based upon Value Line's explicit dividend forecasts (n). I used Value Line's forecast of dividends for 1992 and 1996, and assumed a constant rate of growth in between to estimate the expected dividends (D_t) during the initial growth period. The long-term constant rate

of growth expected after 1996 (g_n) was calculated using the earnings retention method (b x r approach) and Value Line's expected return on equity (r) and expected retention rate (b) for 1996.

Q Did you incorporate an allowance for flotation costs in applying your DCF model?

A Yes. The DCF calculations I performed all include and adjustment of 3% to recognize the expenses associated with issuing stock. An allowance for issuance costs enables the utility to recover the costs incurred when issuing common stock. Issuance expenses include registration, legal, and underwriter fees, and printing and mailing expenses. Investors would never be able to earn the required return on their investment without an issuance cost adjustment because the sales price will always exceed the net proceeds to the company as a result of incurring issuance costs. These costs will be incurred whether the stock is publicly traded or privately held.

Conceptually, the situation with common stock is similar to that of bonds and preferred stock. With bonds for example, the issuance expenses are reflected in the cost charged to

ratepayers and are recovered over the life of the bond. The cost to the company for a specific bond issue is the interest expense plus the amortization of issuance costs divided by the principal value less the unamortized issuance costs. The result is that the cost to the utility is greater than the return to the creditor.

Unlike the case of bonds, however, common stock does not have a finite life. Therefore, issuance costs cannot be amortized and must be recovered by an upward adjustment to the allowed return on equity. This adjustment reflects the fact that, due to the issuance costs, the utility earns a return on an equity balance that is less than the actual amount paid by investors. (See Brigham, E.F., Aberwald, D., and Gapenski, L.D., "Common Equity Flotation Costs and Rate Making," Public Utilities Fortnightly, May 2, 1985, pp. 28-36). Historically, utility underwriting expenses associated with issuing common stock have averaged 3 to 4 percent of gross proceeds. (See Petteway, R.H., "A Note on the Flotation Costs of New Equity Capital Issues of Electric Companies," Public Utilities Fortnightly, March 18, 1982, pp. 68-69. When the adjustment for flotation costs (FC) is

recognized, the cost of equity is given by Equation (6), Schedule 4.

Q What is the required return on common equity for the index based upon your two-stage annually-compounded DCF model?

A Solving Equation (6), Schedule 4 for the cost of equity (K) produces a required return on common equity for the index of 11.50% (rounded). Schedule 6 shows the inputs and results of my analysis.

Q Please describe the risk premium approach of determining the cost of common equity.

A The return to equity owners is a residual return and is less certain than the yield on bonds. Therefore, equity owners must be compensated for this additional risk. The risk premium approach estimates the cost of common equity by adding a premium to the cost rate of debt to compensate the investor for the greater risk inherent in an equity investment. The basic risk premium model takes the form:

$$K_e = B_y + R_p$$

where:

K_e = the cost of common equity

B_y = the yield on debt

R_p = the risk premium on common stock

In order to apply the methodology, a risk premium for common stock over some measure of debt cost must be estimated.

Q How did you estimate the equity - debt risk premium?

A I began my analysis by estimating the required market returns for the index of natural gas utilities for each month of the 1982-1992 ten-year period (120 data points) using the same DCF methodology described previously. This was accomplished by using the Value Line data that was available to investors each month of the 1982-1992 period, and the then current stock prices.

Q How was the equity - debt risk premium determined?

A I began my analysis by estimating the required market returns for Moody's Natural Gas Distribution Index for each month of the 1982-1992 ten-year period (120 data points) using the same DCF methodology described previously. This was accomplished by using the Value Line data that was available to investors each month of the 1982-1992 period, and the then current stock prices.

Q How was the equity - debt risk premium

determined?

A For each month, the required returns on common equity derived from my DCF analyses were compared to the then current yield on long-term government bonds, as reported by Moody's, to determine the risk premium for common equity over the yield on long-term government bonds.

Q What is your estimate of the equity - debt risk premium for the index?

A As shown on Schedule 7, the equity - debt risk premium for the index averaged 3.30% (rounded) over the period 1982-1992.

Q What measure of debt cost did you add to the risk premium to determine the cost of equity?

A I used the November 1, 1992, Blue Chip Financial Forecasts' (Blue Chip) consensus forecast for long-term government bond yields for the coming year of 7.60%. Blue Chip Financial Forecasts is a publication that provides interest rate forecasts from approximately 50 leading financial forecasters.

Q What is the risk premium cost of common equity for the index?

A Combining the next four quarters expected yield on long-term government bonds of 7.60% with

the equity-debt risk premium of 3.30% results in a risk premium cost of equity of 10.90% for the index.

Q Do you have any evidence that supports the reasonableness of using Moody's Natural Gas Distribution Index as a proxy for Southern Bell?

A Yes, I conducted the same risk premium analysis for the index of regional Bell holding companies starting at divestiture (1984) and continuing to the present. The risk premium for the Bell holding companies over this time period is within 10 basis of the risk premium for the gas distribution index used in this docket.

Q Why didn't you use the results of your risk premium analysis of the Bell holding companies to determine a risk premium cost of equity for Southern Bell?

A Although the results of my study support the use of the gas distribution index as a proxy for the index of Bell holding companies, I do not believe the period of time since divestiture provides a sufficiently large sample size for a valid risk premium study. Therefore, I have relied on results that were experienced over a ten year period.

Q How does the investment risk of the Bell Holding Company Index compare to that of the Gas Distribution Index.

A As shown on Schedules 3 and 4, the average bond rating of the Bell Holding Company Index is higher than that of the Gas Distribution Index. The Natural Gas Distribution Index has a lower beta but has a less attractive Value Line Safety Rank and a higher debt ratio. In my judgement, the two indices are comparable.

Q Did you make an adjustment to the required return on equity to recognize the difference in risk between Southern Bell and the indices?

A No. Although Southern Bell is a AAA rated company and the indices are on average AA rated, I did not make a compensating adjustment because of the adjustment I am recommending to Southern Bell's equity ratio. If I had not recommended an adjustment to Southern Bell's equity ratio I would have adjusted the determined cost of equity downward to recognize the difference in risk between Southern Bell and the indices.

Q Based on your DCF and risk premium analyses, what is your conclusion as to the

investor required rate of return on common equity for Southern Bell?

A Based on my DCF analysis and risk premium analyses, I conclude the investor required rate of return on common equity for Southern Bell is within the range of 10.90% to 11.50% with a midpoint of 11.20%. As shown on Schedule 15, a return on common equity of 11.20% will allow Southern Bell a coverage ratio of 4.10X. In my opinion, such a coverage ratio, given Southern Bell's financial profile, should allow Southern Bell to attract capital at a reasonable cost.

Q Have you examined the direct testimony of Southern Bell witness Dr. Randall S. Billingsley regarding the cost of common equity for Southern Bell?

A Yes. In my opinion the estimated cost of equity range of 14.36% to 14.80% determined by Dr. Billingsley overstates the cost of common equity to Southern Bell.

Q Why do you believe Dr. Billingsley's estimate of Southern Bell's cost of common equity overstates Southern Bell's cost of common equity?

A I believe Dr. Billingsley's analysis overstates the cost of common equity for Southern

Bell because Dr. Billingsley: 1) relied on estimates of earnings growth as proxies for expected dividend growth; 2) performed his discounted cash flow analyses on companies that, in my opinion, are not comparable to Southern Bell, and; 3) relied on a quarterly compounded discounted cash flow model that produced an investor's effective required rate of return, but he did not adjust the effective rate to its corresponding nominal rate to recognize that the Florida Public Service Commission relies on average investment and not beginning of the year investment when determining rates.

Q Why do you believe it is incorrect to rely on estimates of earnings growth as a proxy for dividend growth?

A The discounted cash flow (DCF) model is a dividend discounting model. According to DCF theory, the cost of equity is the discount rate (required rate) that equates the present value of the expected cash flows associated with a share of stock to the price of the stock. The cash flows expected to be received from a share of stock consist of expected dividends plus the price investors expect to receive when they sell the

stock. The market price in any period (t) will equal the present value of the dividends and sales price expected after period (t). Applying this concept to all future sales prices, the current stock price can be shown to equal the present value of all dividends expected to be paid in the future, including any liquidating dividend. Therefore, expected dividend growth should be used when determining the cost of common equity using a DCF model.

The expected growth in earnings is not a valid proxy for the expected growth in dividends because all earnings are not paid out as dividends when they are earned. A dollar received in the future is worth less than a dollar received today because a dollar today can be invested in an interest earning account and increase in value. This principle is known as the time value of money.

Generally, utility companies increase dividends in a lock-step fashion and only when it is anticipated that a higher level of earnings can support a higher level of dividends. Not properly accounting for the timing and amount of expected cash flows when performing a discounted cash flow analysis produces an incorrect result.

Q Why do you believe the companies Dr. Billingsley selected for use in his DCF analysis are not comparable to Southern Bell?

A Dr. Billingsley did not provide the companies or the associated data that he used to determine his DCF estimates. However, Dr. Billingsley determined his group of comparable companies for his DCF analysis by performing a "cluster analysis". The "cluster analysis" technique allegedly produces a group of firms with comparable risk by identifying firms that are "close" to the target firm on the basis of selected risk indicia. Additionally, Dr. Billingsley used the S&P 500 to determine his risk premium cost of equity for Southern Bell. In my opinion, the fact that Dr. Billingsley's comparable firms are non-regulated indicates the firms are not "close enough" to be comparable to Southern Bell. Industrial companies in general, and the companies that comprise the S&P 500 in particular, are riskier than Southern Bell. The companies are not regulated and have higher betas than even the Regional Bell Holding Companies which are partly comprised of high risk non-regulated companies. Regulated companies are generally considered less

risky than non-regulated companies because their expected earnings before interest and taxes (EBIT) are generally less variable than non-regulated firms. The reason a regulated firm's expected EBIT is less variable than a non-regulated firm's EBIT is because appropriate regulation requires regulators to balance the interests of ratepayers and shareholders and maintain the regulated firm's financial integrity. This results in less earnings variability for the regulated firm and consequently less uncertainty and therefore less risk.

As further evidence of the lower risk of regulated companies, Standard and Poor's financial benchmark for telephone companies are significantly less burdensome than the criteria for industrial companies because of the difference in risk. It also should be noted that the financial benchmarks for the telephone companies take into account the risks associated with the current status of the industry. Therefore, in my opinion, it is not appropriate to rely on the required return on equity for the S&P 500, or on unregulated industrial companies, as a proxy for the required return on equity for Southern Bell.

Furthermore, Dr. Billingsley's states the expected long term growth of cellular earnings is not reflected in analysts' long-term forecasts of RBHC's earnings growth. However, analysts are considering cellular earnings growth in their long-term earnings forecasts. For example, Morgan Stanley forecasts five-year earnings growth of 6%, on average, for the telco's with 50% of that coming from cellular operations (see Morgan Stanley, U.S. Investment Perspectives, December 18, 1991). Given that cellular operations are much riskier than local exchange operations and investors consider the effects of cellular when evaluating RBHC's stocks, (see S&P Telecommunications Creditreview, June 24, 1991) the effect of cellular on the RBHC's required return on common equity would be to increase it, not decrease it. In fact, as shown on Schedule 8, the evidence indicates the RBHC's cost of common equity has been increasing relative to that of the natural gas distribution index and relative to the risk free rate, as the RBHC's investment in non-regulated operations has increased. In my opinion, such a conclusion is more consistent with financial theory, and the evidence, than the conclusion that the RBHC's

investment in cellular assets is pushing down the relatively rising observed cost of common equity of the RBHC's.

Q Why should the investor's effective required rate of return determined using a quarterly compounded DCF model be adjusted to its corresponding nominal rate of return?

A Using the results derived from a quarterly DCF model without making an effective to nominal rate of return adjustment, when average investment is used to determine appropriate utility rates, is inconsistent and unfair to ratepayers. The effective to nominal rate of return adjustment recognizes the time value of money associated with the company's monthly accrual of earnings which is a function of ratepayers paying their bills on a monthly basis. It is inconsistent to recognize the time value of money associated with investor's quarterly receipt of dividends, through use of a quarterly DCF model, and not recognize the time value of money associated with ratepayers paying their bills on a monthly basis and the company's monthly accrual of earnings. Ignoring the compounding effects of the company's monthly accrual of earnings , as reflected in the 12-month

average equity balance, results in an overestimation of the point at which rates should be set. (See C.M. Linke and J.K. Zumwalt, "Estimation Biases in Discounted Cash Flow Analyses of Equity Capital Cost in Rate Regulation," FINANCIAL MANAGEMENT, Autumn, 1984, pp. 15-20 and M.A. Cicchetti, "The Quarterly Discounted Cash Flow Model, Effective and Nominal Rates of Return, and the Determination of Revenue Requirements for Regulated Utilities", THE NATIONAL REGULATORY RESEARCH INSTITUTE QUARTERLY BULLETIN, June, 1989, pp. 249-259.

Q In your opinion, what effect do the inconsistencies in Dr. Billingsley's testimony have on his recommended cost of common equity for Southern Bell?

A In my opinion, the inconsistencies in Dr. Billingsley's testimony cause his recommended cost of common equity range to be overstated.

Q Please summarize your testimony.

A My testimony addressed two subject areas. The first area was the determination of an appropriate incentive regulation plan for Southern Bell which included an overview of the company's current and proposed incentive regulation plans. I

presented an incentive plan that ties the company's reward to specific company actions to improve production efficiency. In my opinion, such a plan provides a proxy for the economic profits, that is profits above a company's cost of capital, that can be earned in a competitive environment if a company is efficient or innovative.

The second area I addressed was the appropriate return Southern Bell should be allowed for ratemaking purposes. With respect to an appropriate allowed return, I concluded the cost of common equity capital for Southern Bell is within the range of 10.90% to 11.50% and I recommend the Commission allow the midpoint of this range, 11.20%, for ratemaking purposes. With respect to an appropriate equity ratio I concluded Southern Bell's equity ratio should be set at 58.00% of investor capital.

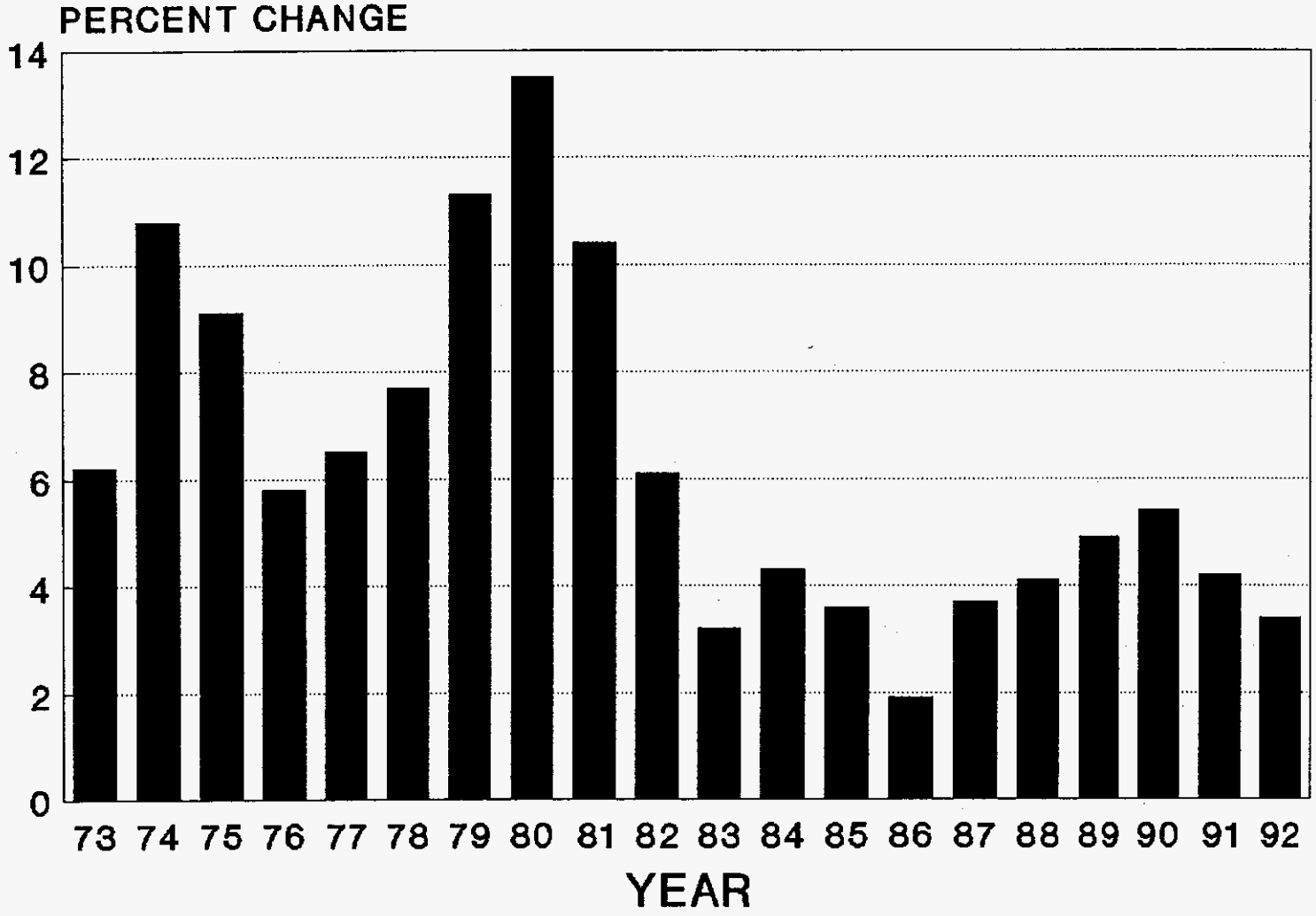
Q Does this conclude your testimony?

A Yes, it does.

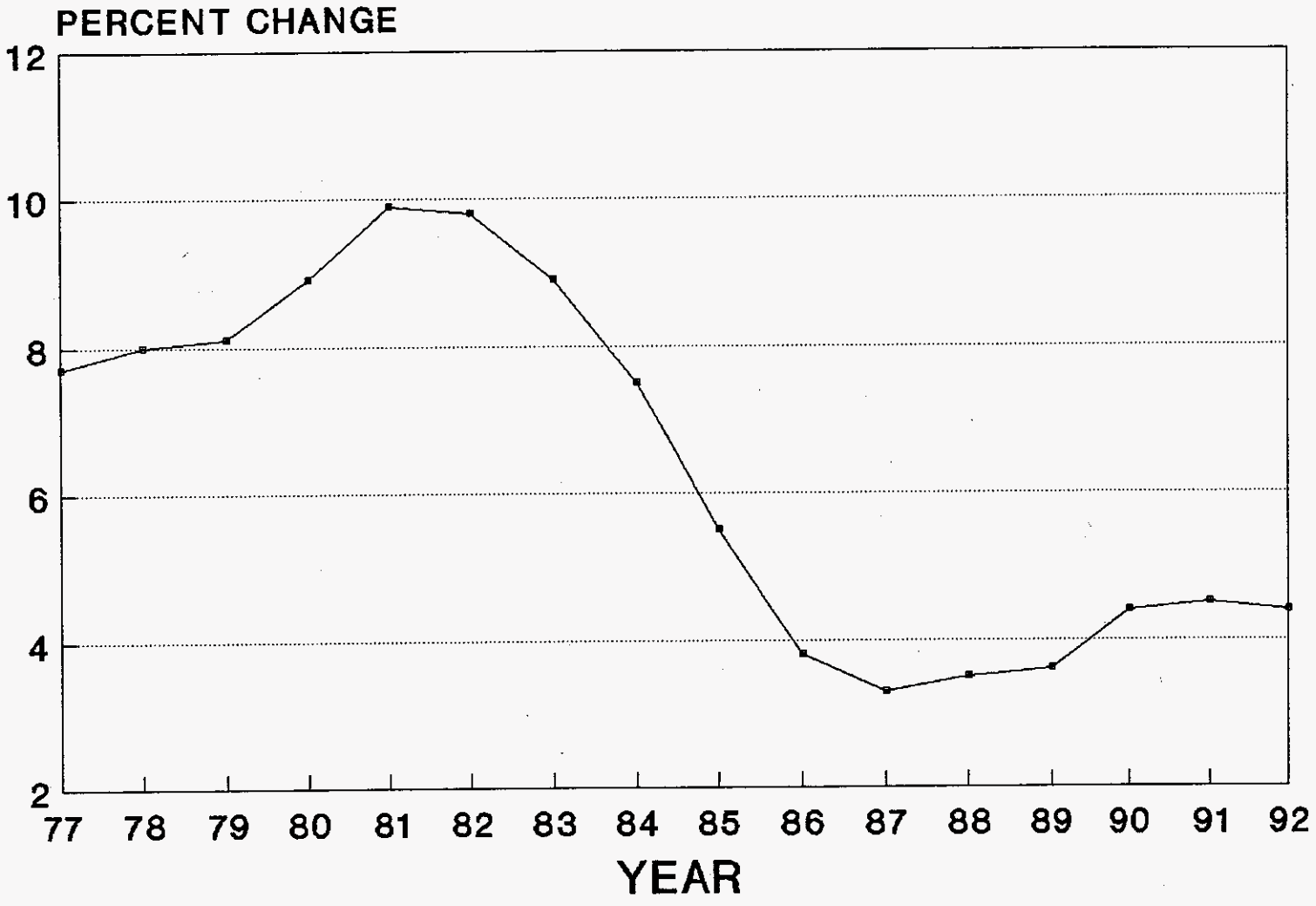
EXHIBITS

LISTING OF EXHIBITS

THE CONSUMER PRICE INDEX
ANNUAL AVERAGE



THE CONSUMER PRICE INDEX
FIVE YEAR MOVING AVERAGE

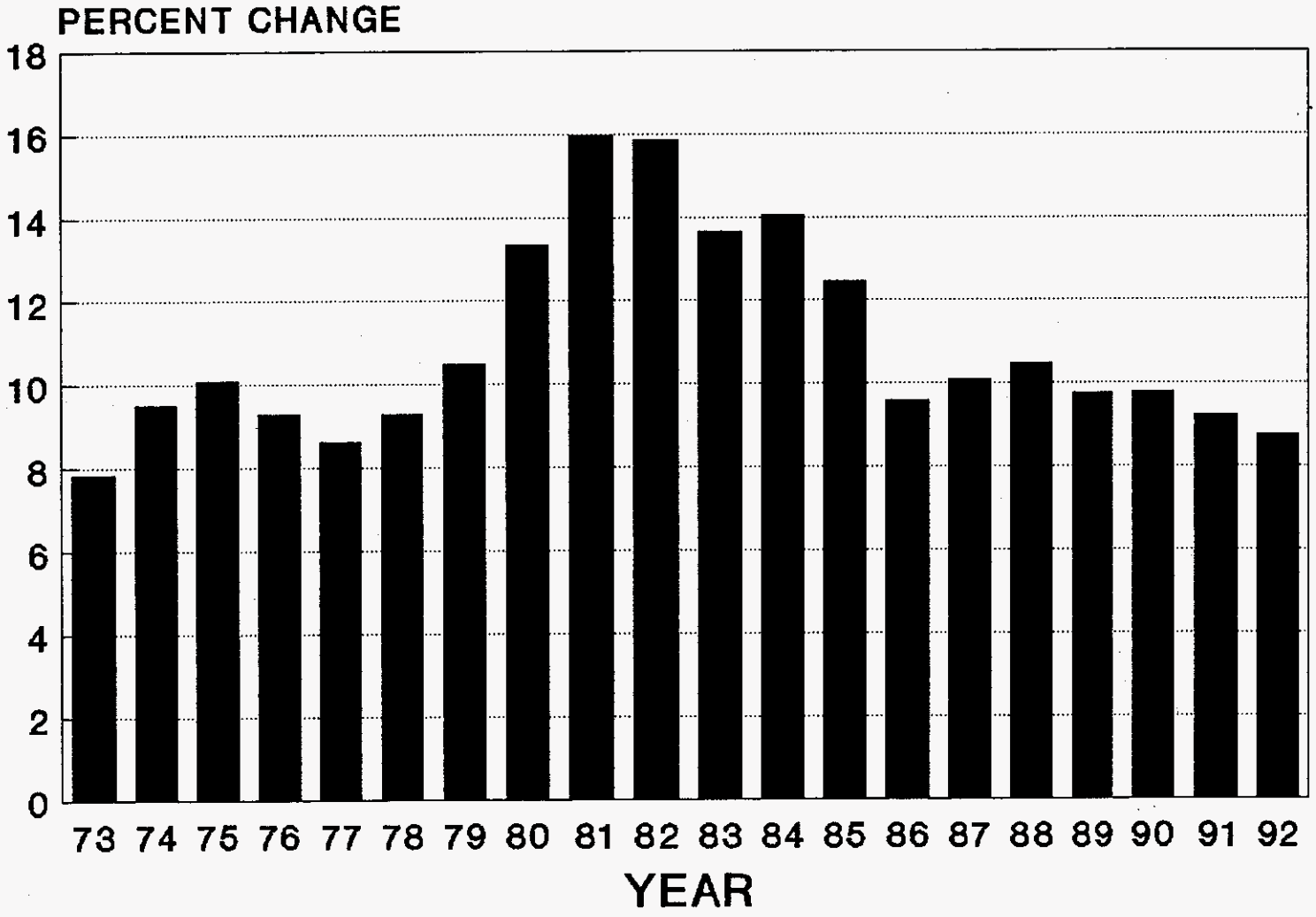


The Consumer Price Index

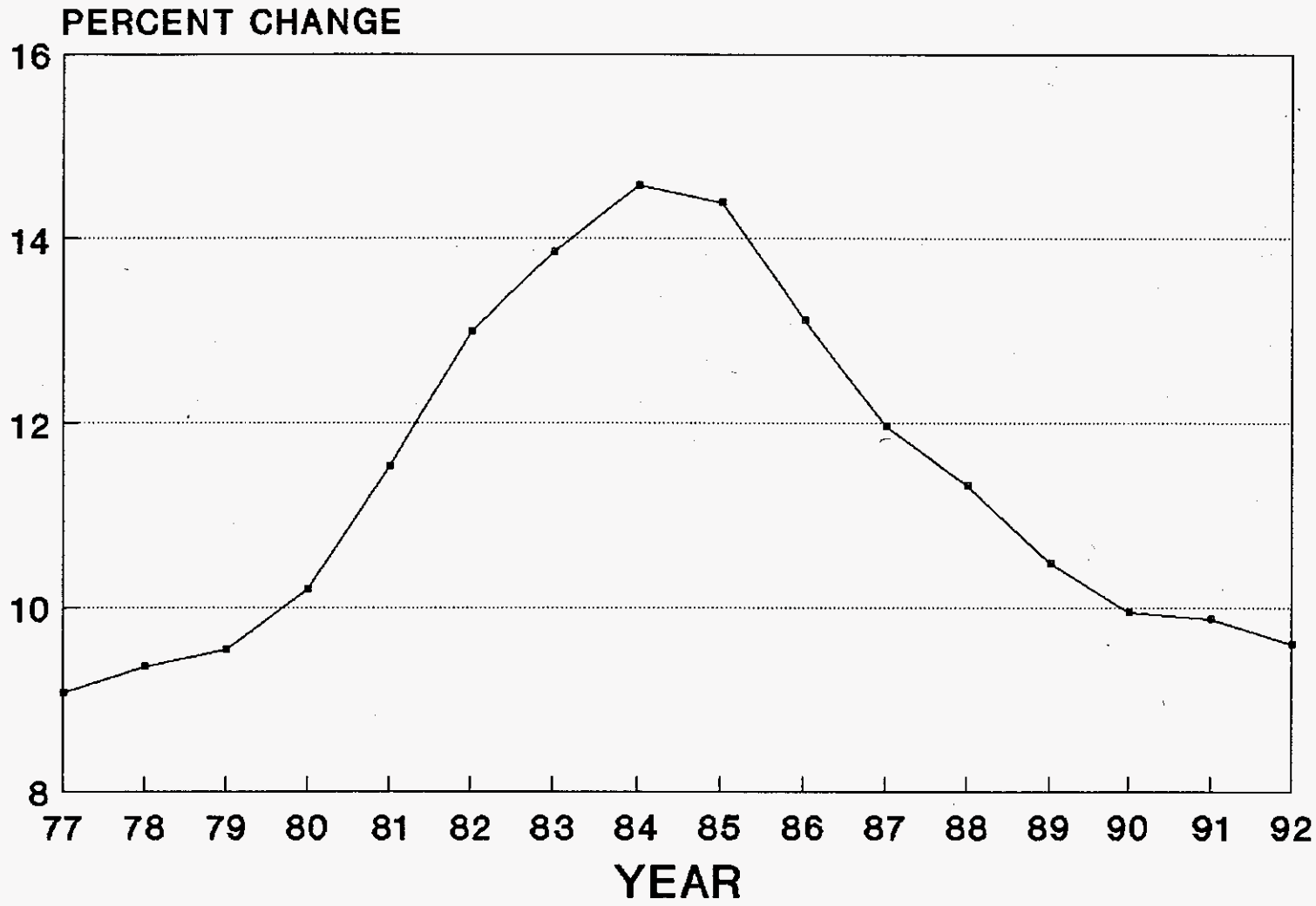
	Annual Average	Five Year Moving Average
1992	3.40%*	4.40%
1991	4.20%	4.50%
1990	5.40%	4.40%
1989	4.90%	3.60%
1988	4.10%	3.50%
1987	3.70%	3.30%
1986	1.90%	3.80%
1985	3.60%	5.50%
1984	4.30%	7.50%
1983	3.20%	8.90%
1982	6.10%	9.80%
1981	10.40%	9.90%
1980	13.50%	8.90%
1979	11.30%	8.10%
1978	7.70%	8.00%
1977	6.50%	7.70%
1976	5.80%	
1975	9.10%	
1974	10.80%	
1973	6.20%	

*Estimated
Source: Value Line

Average Yields A - Rated Utility Bonds
ANNUAL AVERAGE



Average Yields A - Rated Utility Bonds
FIVE YEAR MOVING AVERAGE



Average Yield on A-Rated Utility Bonds

	Annual Average	Five Year Moving Average
1992	8.75%*	9.61%
1991	9.23%	9.88%
1990	9.79%	9.95%
1989	9.77%	10.48%
1988	10.49%	11.33%
1987	10.10%	11.97%
1986	9.58%	13.12%
1985	12.47%	14.39%
1984	14.03%	14.57%
1983	13.66%	13.86%
1982	15.86%	12.99%
1981	15.95%	11.54%
1980	13.34%	10.20%
1979	10.49%	9.55%
1978	9.29%	9.36%
1977	8.61%	9.07%
1976	9.29%	
1975	10.09%	
1974	9.50%	
1973	7.84%	

*Through September

Source: Moody's Bond Survey

Regional Bell Holding Companies
Investment Risk Characteristics

	S&P Stock Rank	Value Line Safety Rank	Value Line Beta	Value Line Equity Ratio	Moody's Bond Rating	S&P Bond Rating
Ameritech	A-	1	.75	63.5%	Aaa	AAA
Bell Atlantic	A-	1	.85	51.0%	Aa1	AA
BellSouth	A-	1	.80	61.0%	Aaa	AAA
NYNEX	A-	1	.80	57.0%	A1	A
Pacific Telesis	A-	1	.85	62.0%	Aa3	AA-
S.W. Bell	A-	1	.85	61.5%	Aa3	A+
U.S. West	A-	1	.85	59.0%	Aa3	AA-
Average	A-	1	.82	59.3%	Aa2	AA-

Source: Value Line Ratings and Report, Ed. 5, 10/16/92
Moody's Public Utility Manual, 1991
Standard & Poor's Bond Guide, September 1992
Standard & Poor's Stock Guide, October 1992

Moody's Natural Gas Distribution Index
Investment Risk Characteristics

	S&P Stock Rank	Value Line Safety Rank	Value Line Beta	Value Line Equity Ratio	Moody's Bond Rating	S&P Bond Rating
Atlanta Gas & Light	A-	2	.65	48.5%	A3	A-
Bay State Gas	A	2	.65	54.0%	A2	A
Brooklyn Union Gas	A-	1	.50	47.0%	N/A	N/A
Indiana Energy	B+	1	.70	57.0%	Aa3	AA-
Laclede Gas	A-	1	.55	54.0%	Aa3	AA-
N.W. Natural Gas	A-	2	.60	43.5%	A1	A
Peoples Energy	B	2	.80	55.0%	Aa3	AA-
Washington Gas Light	A	2	.55	56.0%	Aa3	AA-
Average	A-	1.6	.63	51.9%	A1	A

Source: Value Line Ratings and Report, Ed. 3, 10/2/92
Moody's Public Utility Manual, 1991
Standard & Poor's Bond Guide, September 1992
Standard & Poor's Stock Guide, October 1992

DCF Model Equation

$$(1)\quad P_o = \frac{D_1}{(1+K)} + \frac{D_2}{(1+K)^2} + \frac{D_3}{(1+K)^3} + \ldots + \frac{D_\infty}{(1+K)^\infty}$$

Where: D_t = Dividend paid at the end of period t

K = Investor's required rate of return (the market cost of equity)

P_o = The current price of the stock

Assuming a constant growth in dividends and $g < K$, Equation (1) can be rewritten as:

$$(2)\quad P_o = \frac{D_1}{(1+K)} + \frac{D_1(1+g)^1}{(1+K)^2} + \frac{D_1(1+g)^2}{(1+K)^3} \ldots + \frac{D_1(1+g)^{n-1}}{(1+K)^n}$$

Which can be reduced to:

$$(3)\quad P_o = \frac{D_1}{K-g}$$

Which after rearranging terms, results in the familiar infinite horizon, constant growth, annual DCF model:

$$(4)\quad K = \frac{D_1}{P_o} + g$$

Two-Stage, Annually Compounded DCF Model

$$(5) \qquad P_o = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \left(\frac{D_n(1+g)_n}{K-g_n}\right)\left(\frac{1}{(1+K)}\right)^n$$

Where:

P_o = The current stock price

D_t = The dividends expected during the period of non-constant growth

K = Investor's required rate of return (the market cost of equity)

n = The years of non-constant growth

D_n = The dividend expected in year n

g_n = The constant rate of growth expected after year n

Issuance Costs Adjustment

$$(6) \qquad P_o(1-FC) = \sum_{t=1}^{n} \frac{D_t}{(1+K)^t} + \left(\frac{D_n(1+g_n)}{K-g_n}\right)\left(\frac{1}{(1+K)}\right)^n$$

Where:

FC = Flotation costs

Two-Stage, Annually Compounded
Discounted Cash Flow Model

	******Expected Dividends*******					Expected		Average Dividend Growth	Average Dividend Growth	Average Stock Price
	1992	1993	1994	1995	1996	EPS 1996	ROE 1996	1992-1996	1996+	9/92
Ameritech	3.55	3.70	3.89	4.09	4.30	6.40	18.00	5.14%	5.91%	$66.94
Bell Atlantic	2.60	2.68	2.84	3.02	3.20	4.65	20.00	6.09%	6.24%	$47.25
BellSouth	2.76	2.88	3.04	3.22	3.40	5.45	16.00	5.69%	6.02%	$51.88
NYNEX	4.64	4.72	5.04	5.38	5.75	8.50	15.00	6.80%	4.85%	$83.25
Pacific Telesis	2.18	2.25	2.36	2.48	2.60	4.00	17.50	4.94%	6.13%	$42.50
S.W. Bell	2.90	3.05	3.26	3.49	3.74	6.30	16.00	7.03%	6.50%	$67.69
U.S. West	2.11	2.20	2.33	2.46	2.60	4.45	15.00	5.73%	6.24%	$37.88
Average	2.96	3.07	3.25	3.45	3.66	5.68	16.79	5.92%	5.98%	$56.77

The cost of common equity is calculated using a Two-Stage, Annually Compounded Discounted Cash Flow Model:

$$Po(1-fc) = \sum_{t=1}^{n} Dt/(1+k)^t + (Dn(1+gn))/(k-gn) * (1/(1+k))^t$$

Solving the above equation for k using Po = $57.15, fc = 3%, and n = 5,

Provides a cost of common equity of: **11.53%**

1) Data obtained or calculated from information provided in Value Line, Edition 5, 10/16/92.

2) The average stock price is the average of the high and low stock price for October 1992, Compuserve.

ESTIMATED MONTHLY RISK PREMIUM
MOODY'S NATURAL GAS DISTRIBUTION INDEX
1982 -1992

YEAR	MONTH	Cost of Equity Gas	Risk Free Rate	Risk Premium
1982	NOV	17.83	10.84	6.99
	DEC	17.87	10.46	7.40
1983	JAN	17.28	10.60	6.68
	FEB	17.05	10.64	6.41
	MAR	17.15	10.89	6.26
	APR	16.78	10.65	6.13
	MAY	16.68	10.49	6.19
	JUN	16.51	10.52	5.99
	JUL	15.90	10.95	4.95
	AUG	15.82	11.44	4.38
	SEP	15.88	11.78	4.10
	OCT	15.66	11.62	4.04
	NOV	15.36	11.55	3.81
	DEC	15.51	11.68	3.83
1984	JAN	15.30	11.81	3.49
	FEB	15.31	11.65	3.65
	MAR	15.35	11.81	3.54
	APR	15.19	12.28	2.91
	MAY	15.08	12.58	2.50
	JUN	15.22	13.32	1.89
	JUL	15.76	13.43	2.33
	AUG	15.85	13.24	2.61
	SEP	15.86	12.63	3.23
	OCT	15.93	12.34	3.59
	NOV	15.40	12.00	3.40
	DEC	15.13	11.55	3.58

ESTIMATED MONTHLY RISK PREMIUM
MOODY'S NATURAL GAS DISTRIBUTION INDEX
1982 -1992

1985	JAN	14.80	11.51	3.29
	FEB	14.58	11.46	3.12
	MAR	14.53	11.56	2.97
	APR	14.24	11.92	2.32
	MAY	14.26	11.55	2.71
	JUN	14.16	11.08	3.08
	JUL	14.48	10.48	4.00
	AUG	14.60	10.62	3.98
	SEP	15.13	10.70	4.43
	OCT	14.57	10.78	3.79
	NOV	14.65	10.66	3.99
	DEC	14.24	10.19	4.05
1986	JAN	13.47	9.68	3.79
	FEB	13.39	9.59	3.80
	MAR	13.33	9.26	4.07
	APR	12.61	8.15	4.46
	MAY	12.36	7.58	4.78
	JUN	12.40	8.13	4.27
	JUL	11.53	8.27	3.26
	AUG	11.40	7.88	3.52
	SEP	11.37	7.74	3.63
	OCT	11.14	8.10	3.04
	NOV	11.33	8.06	3.27
	DEC	11.07	7.82	3.25
1987	JAN	11.55	7.66	3.89
	FEB	11.36	7.62	3.74
	MAR	11.33	7.71	3.62
	APR	11.02	7.64	3.38
	MAY	11.46	8.35	3.11
	JUN	11.59	8.85	2.74
	JUL	11.44	8.67	2.77
	AUG	11.55	8.77	2.78
	SEP	11.55	9.06	2.49
	OCT	11.83	9.67	2.16
	NOV	12.55	9.73	2.82
	DEC	12.69	9.10	3.59

ESTIMATED MONTHLY RISK PREMIUM
MOODY'S NATURAL GAS DISTRIBUTION INDEX
1982 -1992

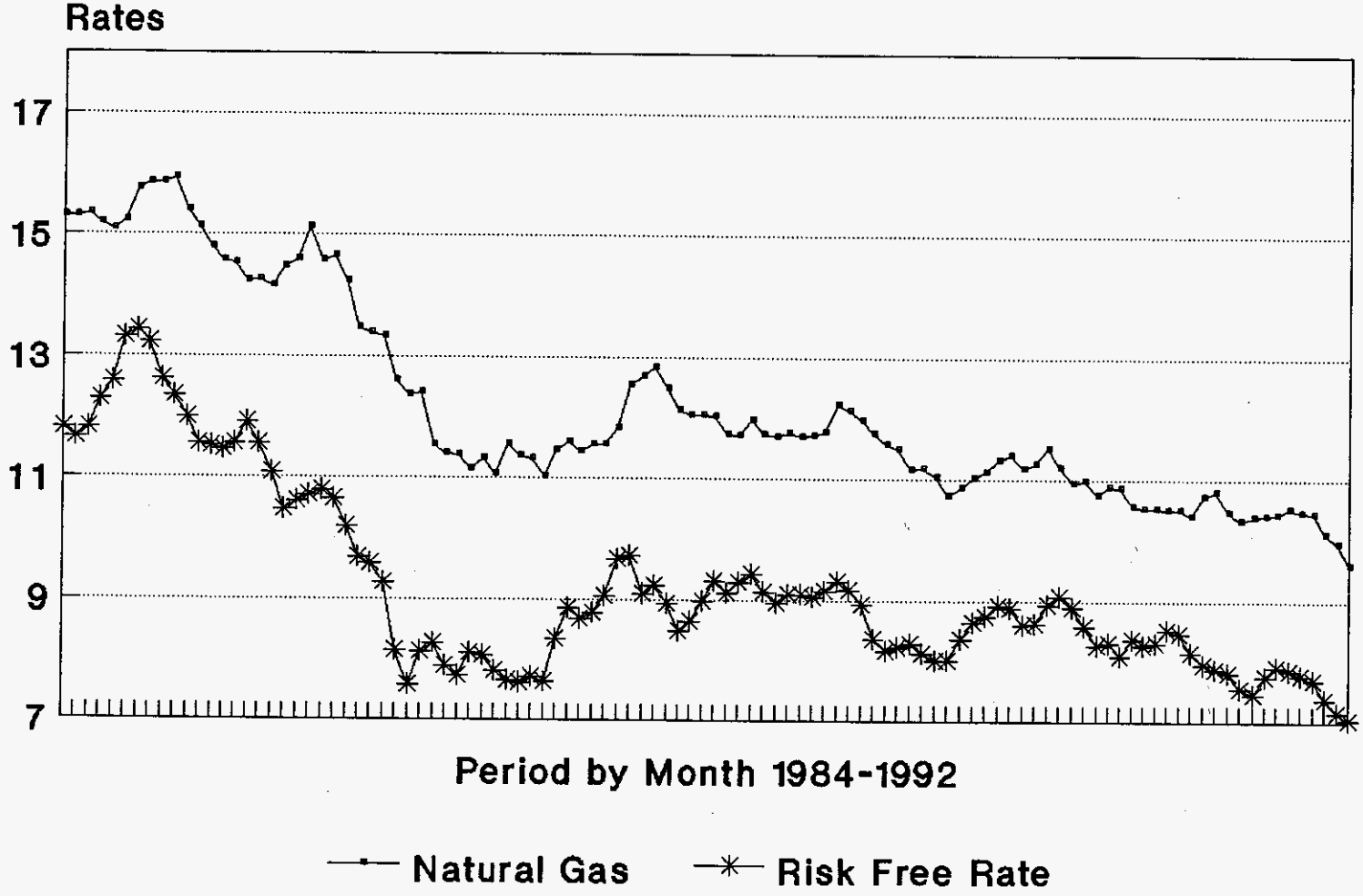
1988	JAN	12.83	9.23	3.60
	FEB	12.48	8.93	3.55
	MAR	12.13	8.48	3.65
	APR	12.05	8.64	3.41
	MAY	12.05	8.97	3.08
	JUN	12.04	9.30	2.74
	JUL	11.73	9.11	2.62
	AUG	11.71	9.28	2.43
	SEP	11.97	9.42	2.55
	OCT	11.74	9.14	2.60
	NOV	11.70	8.96	2.74
	DEC	11.75	9.09	2.66
1989	JAN	11.69	9.10	2.59
	FEB	11.71	9.05	2.66
	MAR	11.78	9.15	2.63
	APR	12.22	9.31	2.91
	MAY	12.13	9.17	2.96
	JUNE	11.97	8.93	3.04
	JULY	11.76	8.37	3.39
	AUG	11.58	8.16	3.42
	SEPT	11.49	8.23	3.26
	OCT	11.17	8.29	2.88
	NOV	11.18	8.12	3.06
	DEC	11.05	8.00	3.05
1990	JAN	10.72	8.00	2.72
	FEB	10.86	8.37	2.49
	MAR	11.03	8.63	2.39
	APR	11.13	8.73	2.40
	MAY	11.32	8.92	2.40
	JUN	11.40	8.87	2.53
	JUL	11.18	8.60	2.58
	AUG	11.26	8.62	2.64
	SEP	11.51	8.93	2.58
	OCT	11.21	9.08	2.13
	NOV	10.94	8.89	2.05
	DEC	10.99	8.58	2.41

ESTIMATED MONTHLY RISK PREMIUM
MOODY'S NATURAL GAS DISTRIBUTION INDEX
1982 -1992

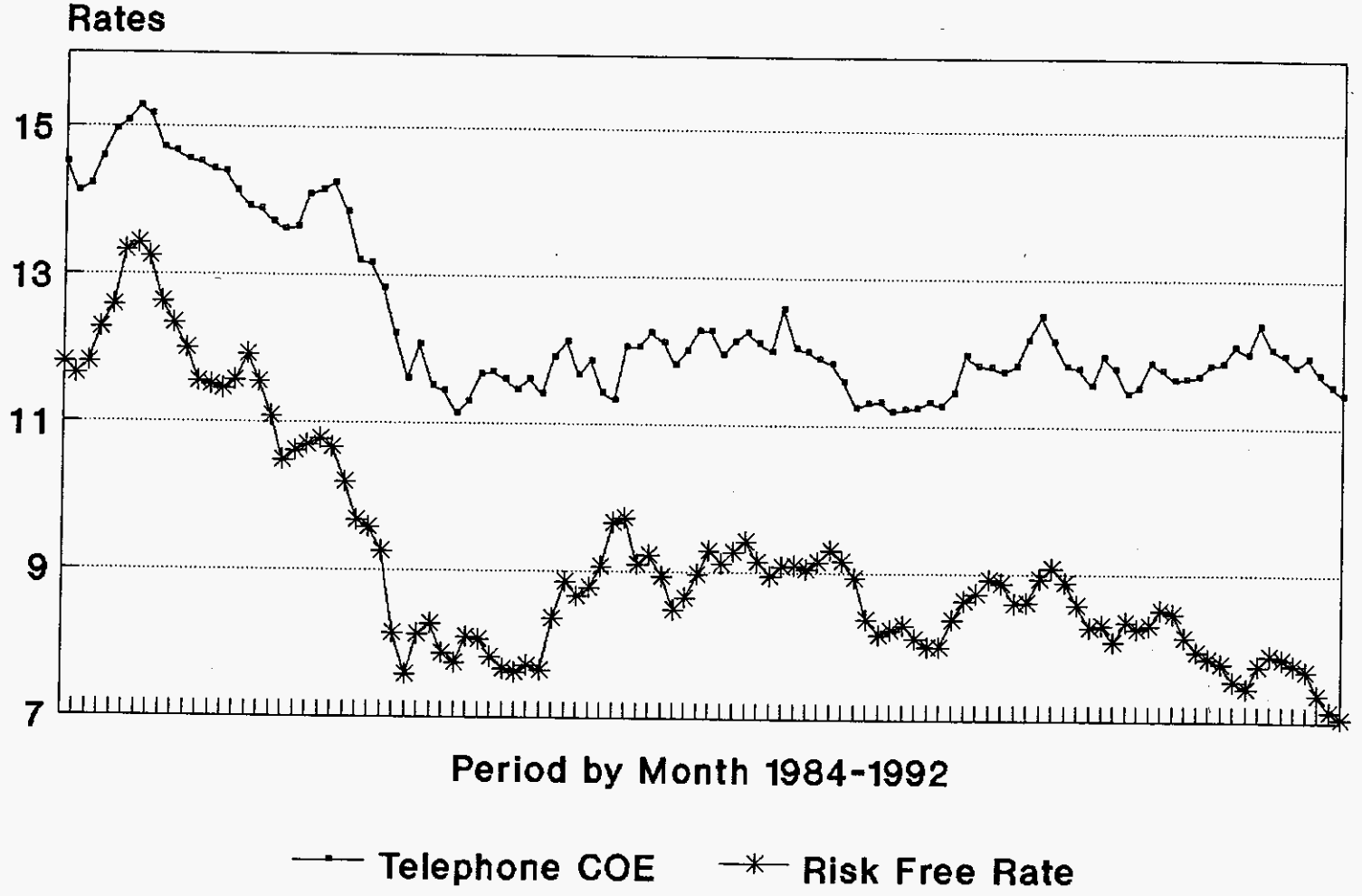
1991	JAN	10.74	8.27	2.47
	FEB	10.89	8.31	2.58
	MAR	10.87	8.09	2.78
	APR	10.58	8.36	2.22
	MAY	10.53	8.26	2.27
	JUN	10.54	8.31	2.23
	JUL	10.52	8.52	2.00
	AUG	10.51	8.47	2.04
	SEP	10.41	8.15	2.26
	OCT	10.72	7.95	2.77
	NOV	10.80	7.86	2.94
	DEC	10.47	7.80	2.67
1992	JAN	10.34	7.55	2.79
	FEB	10.39	7.46	2.93
	MAR	10.41	7.76	2.65
	APR	10.43	7.90	2.53
	MAY	10.54	7.85	2.69
	JUN	10.48	7.77	2.71
	JUL	10.45	7.70	2.75
	AUG	10.12	7.37	2.75
	SEP	9.95	7.15	2.80
	OCT	9.61	7.05	2.56
AVERAGE				3.29

SOURCE: Value Line 1982-1992, Moody's Municipal and Government Manual

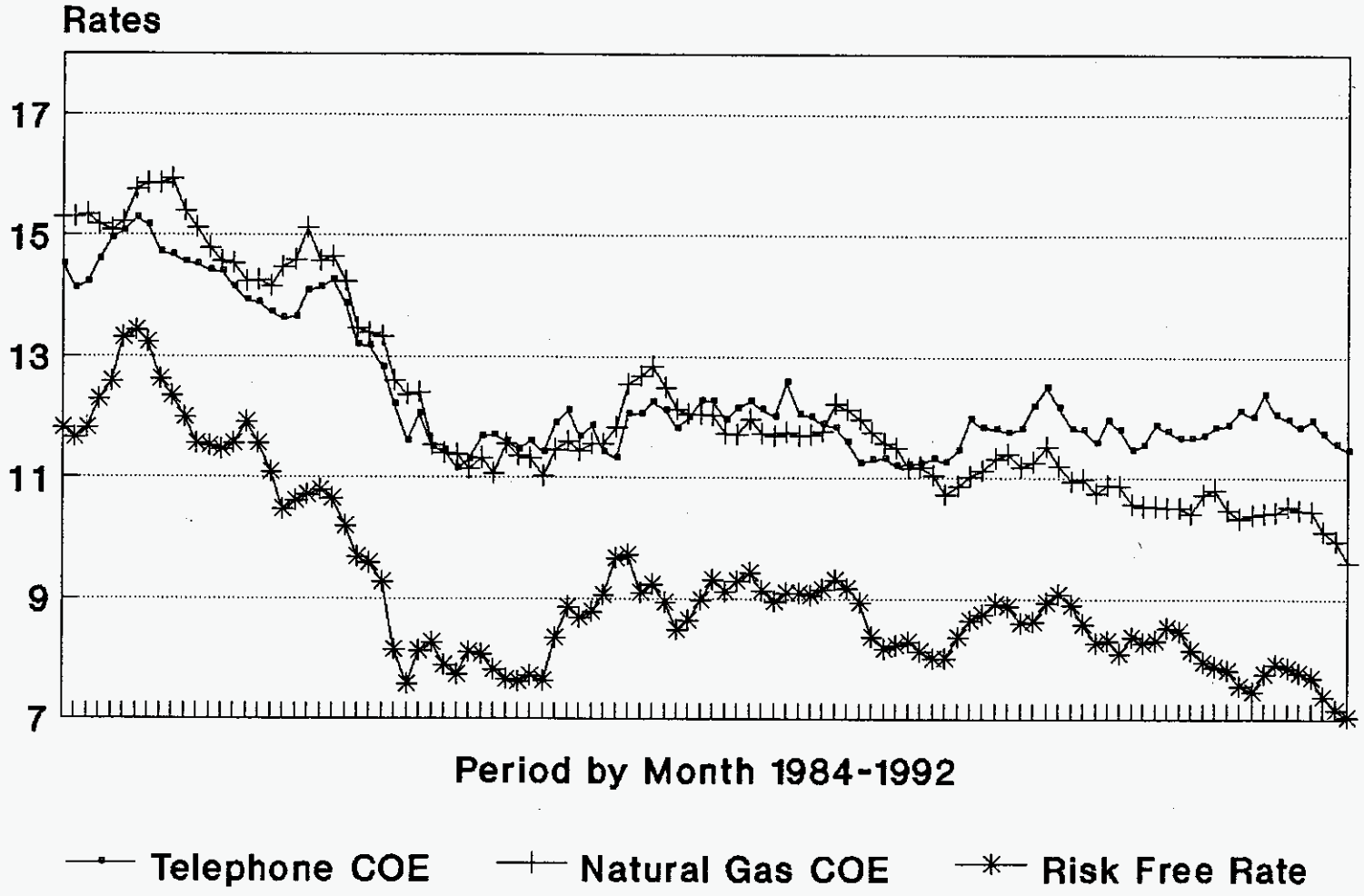
Natural Gas DCF Cost of Equity Versus Risk - Free Rate



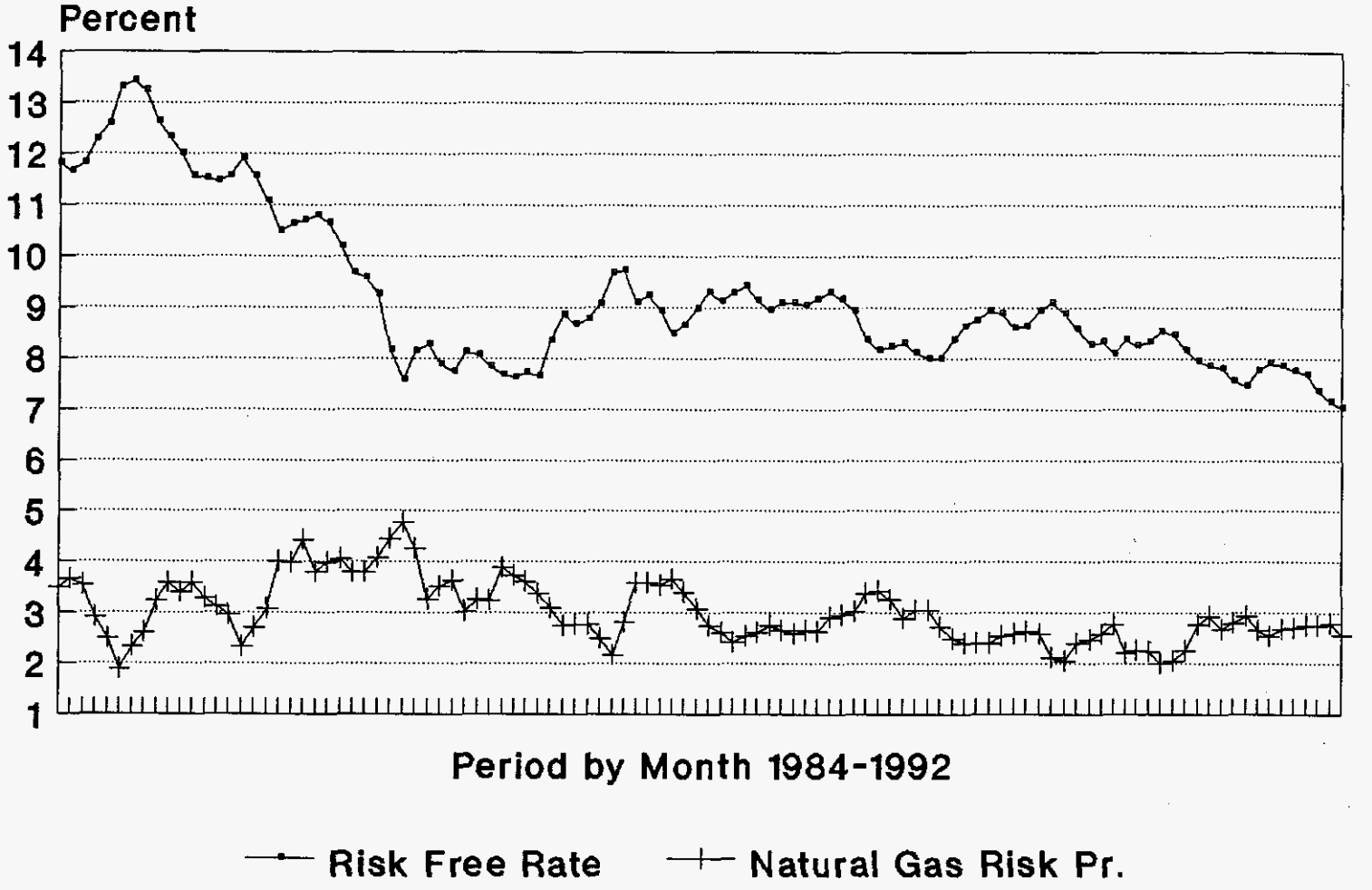
Telephone DCF Cost of Equity Versus Risk - Free Rate



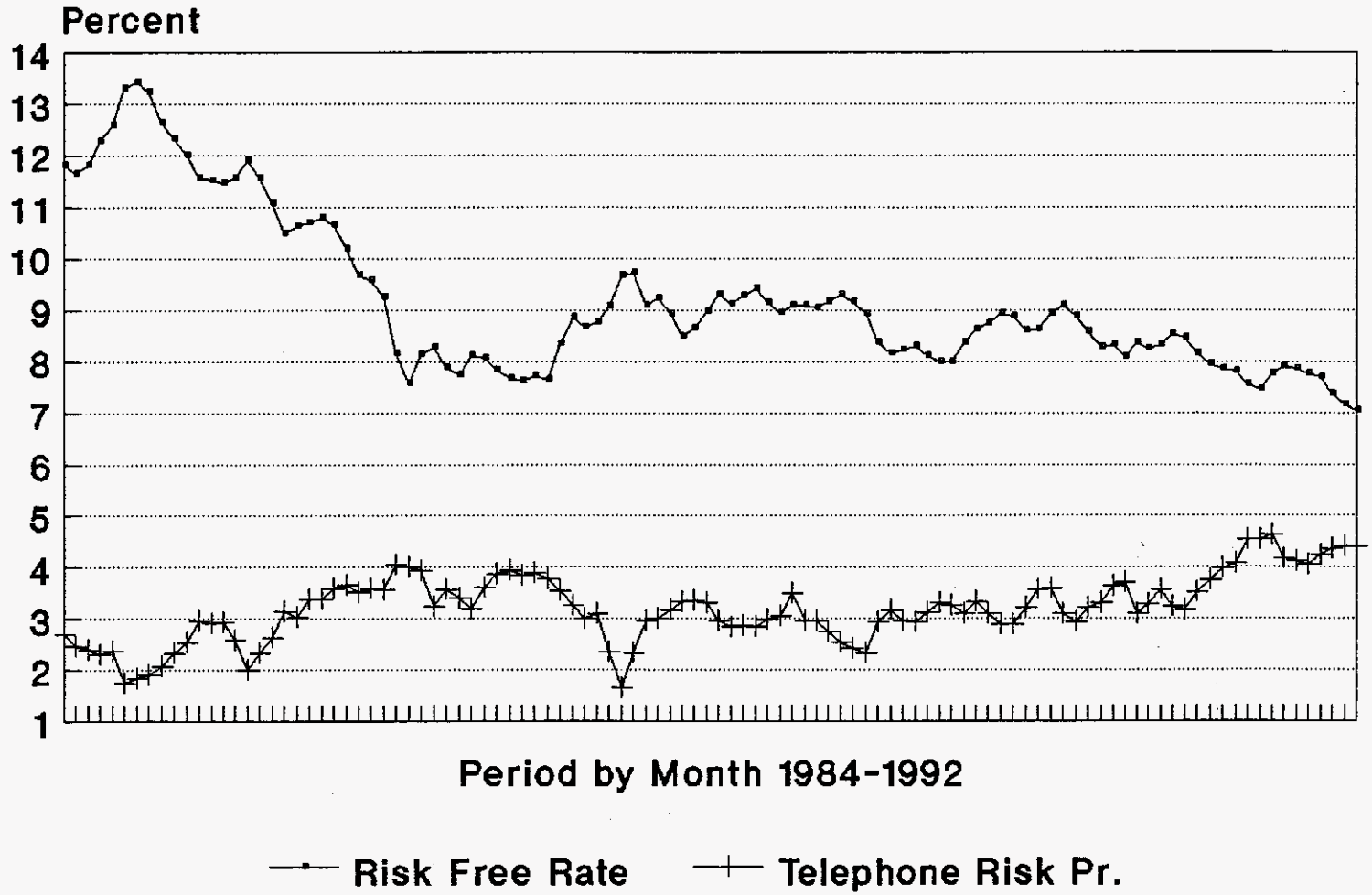
Telephone & Natural Gas DCF Cost of Equity Versus Risk-Free Rate



Natural Gas Risk Premium
Versus Risk-Free Rate



Telephone Risk Premium
Versus Risk-Free Rate



Risk Premium Cost of Equity

Risk Premium + Expected Risk-Free Rate

Ke = 3.29% + 7.58%

Ke = 10.90% (Rounded)

Source: Blue Chip Financial Forecast, November 1, 1992

Standard & Poor's Financial Benchmarks

Financial Benchmarks
for
Local Exchange Companies

	AA	A	BBB
Total Debt/ Total Capital	Under 42%	40% - 52%	50% - 62%
Pretax Interest Coverage	Over 4.5X	3.3X - 5.0X	2.3X - 4.0X
Net Cash Flow/ Average Total Debt	Over 32%	25% - 33%	20% - 30%
Funds from Operations Interest Coverage	Over 6.5X	5.0X - 7.0X	3.5X - 5.5X

Source: Standard & Poor's Credit Review, February 10, 1992

Regional Bell Operating Companies
Financial Ratio Summary

Operating Subsidiary	Parent Company	Bond Rating	Total Capital (Mil.)	Tot. Debt/ Tot. Cap.	Pretax Interest Coverage	Return on Average Equity	Net Cash Flow/Cap. Outlays	Net Cash Flow/Total Debt
Illinois Bell	Ameritech	AAA	3,937.0	41.8	5.09	15.2	83.2	32.6
Indiana Bell	Ameritech	AAA	1,363.4	33.3	7.01	16.4	97.1	46.1
Michigan Bell	Ameritech	AAA	3,569.7	41.3	4.47	14.3	107.0	36.2
Ohio Bell	Ameritech	AAA	2,511.3	38.2	4.76	15.1	95.7	33.7
Wisconsin Bell	Ameritech	AAA	1,349.7	38.6	5.26	13.7	107.5	33.2
Bell Tel. of Pa.	Bell Atlantic	AA	4,306.0	43.5	4.80	14.8	170.5	35.1
Chesapeake & Potomac Tel.	Bell Atlantic	AA	644.8	43.6	4.69	13.4	113.7	45.0
Ches. & Pot. of Md.	Bell Atlantic	AA	2,580.5	42.5	4.75	15.4	82.9	32.8
Ches. & Pot. of Va.	Bell Atlantic	AA+	2,521.4	41.5	5.21	16.3	81.3	33.6
Ches. & Pot. Tel. of W.Va.	Bell Atlantic	AA	753.9	38.8	5.82	16.6	112.9	43.5
Diamond State	Bell Atlantic	AAA	275.5	32.5	9.05	20.5	120.4	58.4
N.J. Bell Tel.	Bell Atlantic	AAA	3,966.7	37.4	5.49	16.9	86.4	35.9
BellSouth Telecomms. Inc.	Bellsouth	AAA	18472.4	38.8	4.33	12.9	91.4	36.8
New Eng. Tel. & Tel.	NYNEX	AA-	5,658.1	42.1	4.25	13.1	95.2	32.0
New York Tel.	NYNEX	A	10,301.8	43.2	3.45	11.5	71.6	24.3
Pacific Bell	Pac. Telesis	AA-	12,474.0	43.0	4.64	14.7	105.1	30.5
Southwestern Bell	S.W. Bell	A+	12,425.7	42.9	3.78	13.8	80.1	24.0
U.S. West Comms., Inc.	U.S. West	AA-	12,811.7	39.6	4.15	12.7	73.8	31.4
Average		AA+	5,551.3	40.1	5.06	14.9	98.7	35.8

Source: Standard & Poor's Credit Review, February 10, 1992

Docket No. 920260-TL
Mark A. Cicchetti
Schedule 11
Page 1 of 1

Bell Regional Holding Companies
Financial Ratio Summary

Company	Bond Rating	Total Capital (Mil.)	Tot. Debt/ Tot. Cap.	Pretax Interest Coverage	Return on Average Equity	Net Cash Flow/Cap. Outlays	Net Cash Flow/Avg. L-T Debt	Access Lines (Mil.)	Access Line Growth
Ameritech	AAA	14,772.1	45.2	3.96	15.9	94.9	31.0	16,278	2.40%
Bell Atlantic Corporation	AA	19,900.5	53.0	3.07	13.7	101.1	25.4	17,484	2.50%
Bellsouth Corporation	AAA	22,317.2	41.9	3.86	11.9	98.5	34.3	17,510	3.20%
NYNEX	A+	18,015.7	47.2	2.66	9.0	75.1	23.4	15,303	2.30%
Pacific Telesis	AA-	14,327.0	45.3	3.76	13.8	117.3	33.4	14,112	3.30%
Southwestern Bell Corporation	A+	16,184.2	45.9	3.51	13.4	103.3	28.3	12,105	2.90%
U.S. West Comms., Inc.	AA-	19,725.5	49.4	3.21	12.4	92.5	26.0	12,562	2.80%
Average		17,891.7	46.8	3.4	12.9	97.5	28.8	15,051	2.77%

Source: Standard & Poor's Credit Review, February 10, 1992
Standard & Poor's Industry Surveys, January 23, 1992

Southern Bell Telephone and Telegraph Company -
Selected FinancialRatios

% Internal funds to construction expenditures after dividends (Total Company)	114.03%
Pretax interest earned (NI+ Interest +Income Tax)/Interest (Total Company)	4.53X
Long Term Debt/Capital (Florida Intrastate)	32.99%
Short Term Debt/Capital (Florida Intrastate)	4.18%
Average adjusted achieved return on equity (Florida Intrastate)	13.63%
Adjusted year-end return on equity (Florida Intrastate)	13.21%

Source: Florida Public Service Commission, Southern Bell Telephone and Telegraph Company, Earnings Surveillance Report for 12 months ending June 30, 1992

Bell Regional Holding Companies
Revenue Breakdown (%)
1991

	Local Service	Toll	Access	Other
Ameritech	45%	12%	24%	19%
Bell Atlantic	39%	13%	24%	24%
BellSouth	40%	10%	26%	24%
Nynex	46%	9%	25%	20%
Pacific Telesis	34%	22%	23%	21%
Southwestern Bell	38%	11%	26%	25%
U.S. West	33%	14%	25%	28%
Average 1991	39%	13%	25%	23%
Average 1988	42%	14%	29%	14%

Source: Value Line, Ratings & Reports, Edition 5, July 17, 1992
Value Line, Ratings & Reports, Edition 5, April 22, 1988

Southern Bell Telephone and Telegraph Company
Thirteen Month Average

	FPSC Adjusted Retail	% of Total	Cost	After-Tax Weighted Cost	Pre-Tax Weighted Cost
Common Equity	$1,910,719	44.47%	11.20%	4.98%	7.99%
Long-Term Debt	$1,249,544	29.08%	8.73%	2.54%	2.54%
Short-Term Debt	$134,080	3.12%	3.75%	0.12%	0.12%
Customer Deposits	$55,183	1.28%	8.25%	0.11%	0.11%
Cost Free Capital	$799,172	18.60%	0.00%	0.00%	0.00%
Investment Tax Credits	$148,254	3.45%	10.22%	0.35%	0.57%
	$4,296,952	100.00%		8.09%	11.32%
				TIE Ratio =	4.10