

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of
The Ohio Bell Telephone Company
for an Increase in Electric Rates in its
Service Area.

)
) Case No. 93-487-TP-ALT
)
)

Telephone ✓

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BOOKETING DIVISION
PUBLIC UTILITIES COMMISSION OF OHIO

Prepared
Testimony of
Stephen R. Chaney
Performance Analysis Department

Staff Exhibit

20

1 1. Q. Please state, for the record, your name, position, and background.

2
3 A. My name is Stephen R. Chaney. I am employed as a Financial Analyst in
4 the Performance Analysis Division, Utilities Department of the Public
5 Utilities Commission of Ohio, 180 East Broad Street, Columbus, Ohio,
6 43266-0573.

7
8 I have received a Bachelor of Science Degree in Civil Engineering from
9 Purdue University in December, 1978, and a Master's Degree in City and
10 Regional Planning from Ohio State University in December, 1981. I
11 have been employed by the Public Utilities Commission of Ohio since
12 January, 1982.

13
14 2. Q. What is the purpose of your testimony in this proceeding?

15
16 A. It is the purpose of my testimony in this proceeding to update the cost of
17 capital determination contained in the Staff Report of Investigation and
18 to respond to objections to the Staff Report of Investigation that relate to
19 the rate of return issue. In the body of my testimony, I will address
20 objections of the Applicant number 2 a through e, objections of the OCC
21 numbers 50 through 55, objections of the IXC Coalition numbers 1
22 through 3, objection of Time Warner Access number 2, objection of the
23 American Association of Retired People number 6, and objection of the
24 Legal Aid Society of Dayton number 41.

1 3. Q. Does your testimony address any issues regarding the embedded costs of
2 long-term debt and preferred stock?

3
4 A. No, objections regarding embedded costs were not filed.
5

6 4. Q. Does your recommendation in this testimony contain a recommended
7 point within the rate of return range.
8

9 A. No. The purpose of my recommendation is to present an accurate
10 estimate of the Applicant's cost of capital. The Staff's analysis was
11 conducted solely with regard to cost of capital issues. The Staff believes
12 that all points within the range are reasonable estimates of the
13 Applicant's cost of capital, and any decision as to what rate of return
14 should be granted, within the range, must necessarily be based on factors
15 other than cost of capital.
16

17 5. Q. How did the Staff determine its recommendation of a fair and reasonable
18 rate of return for the Applicant?
19

20 A. The Staff calculated the rate of return based on a cost of capital approach.
21 This methodology takes into account the amounts and costs of long-term
22 debt, preferred stock, and common equity. The cost of capital as
23 determined by the Staff appears in Table 1, below.

TABLE 1

Staff's Overall Rate of Return Recommendation
Ameritech and Subsidiaries
December 31, 1993
(Dollars in Thousands)

	<u>Amount</u>	<u>% of Total</u>	<u>% Cost</u>	<u>% Weighted Cost</u>
Long-Term Debt	\$ 3,811,423	32.70%	7.37%	2.41%
Common Equity	<u>7,844,635</u>	<u>67.30%</u>	12.09-13.11%	<u>8.14-8.82%</u>
Total	\$ 11,656,058	100.00%		10.55-11.23%

6. Q. How were the costs and amounts of long-term debt and preferred stock determined?

A. The Costs and amounts of long-term debt and preferred stock were determined from an update to December 31, 1993 of Applicant's Schedules D-3 and D-4 of the Standard Filing Requirements. Both the amount and annual interest cost for long-term debt, as of December 31, 1993, are \$3,811,423,250 and \$280,975,624, respectively. This results in an embedded cost of long-term debt of 7.37%. The Applicant has no balance of preferred equity as of December 31, 1993.

7. Q. How was the amount of common equity determined?

A. The amount of common equity is the balance from December 31, 1993 of \$7,844,635,000.

8. Q. How did the Staff determine the common equity investor's required return?

1 A. The Staff used the discounted cash flow (DCF) methodology to
2 determine the cost of equity capital (required return) to Ameritech and
3 Subsidiaries. The DCF method recognizes that investors must be
4 compensated for foregoing the present use of income. Investors
5 purchase stock with the expectation of receipt of future dividends. The
6 price an investor is willing to pay is equal to the present value of
7 expected future dividends.

8
9
$$(1) \quad P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_t}{(1+k)^t} = \sum_{t=1}^{\infty} \frac{D_t}{(1+k)^t}$$

10
11 Where:

12 P_0 = current price of the stock

13 D_t = expected dividends in the year t

14 K = discount rate (required return)

15
16 If the expected dividend growth rate can be represented by g, then
17 equation (1) becomes:

18
19
$$(2) \quad k = \frac{D_1}{P_0} + g$$

20
21 Where:

22 k = discount rate (required return) or cost of capital

23 g = expected growth rate in dividends

24
25 That is, the cost of capital (stockholders' required return) is the sum of
26 the dividend yield and the expected growth rate.

1 As D_1 is not known ahead of time, $D_t = D_0 (1+g)$ is substituted:

2
3
$$k = \frac{D_0(1+g)}{P_0} + g$$

4

5 9. Q Why did the Staff use the discounted cash flow (DCF) methodology to
6 determine the cost of equity capital?

7
8 A The Staff views the DCF approach as an appropriate basis for the
9 determination of the cost of capital because it is consistent with the
10 Staff's effort to promote economic efficiency in a regulated environment.
11 The Staff believes that regulatory authorities must function as a
12 substitute for competitive market forces and believes that achievement
13 of economic efficiency is beneficial to both the utility company and the
14 consumers.

15
16 The DCF approach is consistent with economic efficiency because it
17 equates the "required" return of the equity investor (or cost of capital to
18 the company) to what can be earned on new additional investment in
19 the competitive marketplace.

20
21 Consider an investor who has purchased and holds one share of public
22 utility stock. He has done so because his "required" return for his saving
23 sacrifice is equal to the expected return he will receive by holding the
24 stock.

25
26 If the investor observes that the expected return from the public utility
27 stock is less than: (1) the expected return from shares of unregulated

1 companies of comparable risk, and/or (2) the return that can be earned
2 on new direct (physical) investment of comparable risk, then he will sell
3 his share of the public utility stock and either purchase the shares of the
4 unregulated companies or engage in direct investment.

5
6 Assume now that many investors act in the same rational way. The
7 selling of the public utility stock will reduce its price and therefore
8 increase the expected return up to the point where it is equal to the
9 return of the comparable unregulated companies and/or to the return of
10 the new additional direct investment.

11
12 The exact opposite movement will occur if the expected return from a
13 public utility stock is higher than the expected return from stock of
14 comparable unregulated companies.

15
16 Therefore, the "required" return or cost of capital derived by using the
17 DCF approach is equal to the cost of equity capital of unregulated
18 companies of comparable risk and the return on additional direct
19 investments of comparable risk. It is thus consistent with the principles
20 of economic efficiency and commensurate with returns on investment
21 in other enterprises bearing corresponding risks.

22
23 10. Q. How did the Staff apply the DCF methodology to arrive at a cost of equity
24 recommendation in the case of the Applicant?

25
26 A. The Staff used a discounted cash flow (DCF) analysis to estimate the cost
27 of common equity to the Applicant. The Staff's customary and preferred

1 method of analysis is to apply the DCF methodology to the Applicant's
2 common stock, or, if the Applicant is a subsidiary, to that of the parent
3 company. A secondary method of analysis, applying the DCF
4 methodology to a comparable group of companies, is also often
5 employed.

6
7 In the present case, efforts to establish reasonable and meaningful
8 estimates of the Applicant's cost of equity through a DCF analysis of
9 Ameritech's common stock were not, at the time of the Staff Report,
10 successful. The update of the Ameritech-only DCF is more meaningful.
11 Although aspects remain problematic. The "classic" DCF model utilizes
12 a company's retention ratio and earned return on equity to compute a
13 sustainable growth rate, a specification usually referred to as the "B
14 times R" approach. The five-year "BxR" for Ameritech is 5.36%. The
15 July 1993 to June 1994 average of Ameritech's stock price, together with
16 the dividend over the period produces a dividend yield of 4.70%, which,
17 when combined with the "BxR" growth rate, results in a cost of equity
18 estimate of 10.31%. Value Line projects earnings per share forward to
19 the 1997-99 time frame at \$4.15, while 1994 earnings per share are
20 expected to be \$2.55. Using the midpoint of 1998, this implies a 12.18%
21 compound annual growth rate and a 17.45% estimate of the cost of
22 equity. The equivalent estimate in the Staff Report is 9.66%. The Staff
23 believes this illustrates the problem of relying, in certain situations,
24 upon earnings estimates by financial analysts, particularly when applied
25 to a single company. For groups of companies, however, the earnings
26 estimates are less volatile, as statistical distortions are likely to be
27 offsetting, at least to some degree.

1 A group of telephone companies with a substantial orientation towards
2 provision of local service would be useful in cost of equity analysis. The
3 Staff utilized the Telecommunications CompuStat data base to screen for
4 a group of companies for a comparable DCF analysis. The selection
5 criteria required companies to be located in the continental United
6 States, have publicly traded common stock, and have local service
7 operating revenues. An additional selection criterion was that Value
8 Line information be available for the company. Besides Ameritech,
9 fifteen companies met these criteria, and Value Line reports were
10 examined for these companies. From this examination, the Staff
11 concluded that the business activities or market situation of four of these
12 companies indicated that their inclusion in a comparable group would
13 be inappropriate. The excluded companies were Century Telephone,
14 Lincoln Telecommunications, Sprint Corporation, and Telephone &
15 Data Systems.

16
17 The basic selection criteria being a substantial orientation towards local
18 service, the Staff believes this to be an adequate method for comparable
19 group selection. However, additional explicit criteria can be applied,
20 with the resultant selection of the same group. These criteria are, a
21 Standard & Poor's senior debt rating of BBB+ or better, total operating
22 revenues and sales of greater than \$200 million, a ratio of local service
23 operating revenues to total telephone operating revenues between
24 twenty and sixty percent, and local service operating revenues greater
25 than toll service operating revenues. No comparable group is perfect,
26 but the Staff believes that the selected group of Ameritech and eleven

1 its derivation from a dividend growth estimate. The Value Line
2 prospective "BxR," derived from the projected EPS, DPS, and return on
3 equity in the "'97-'99" column, results in an equity estimate of 12.43%.
4 Analysis of Value Line points to an estimated cost of equity of about
5 12.35%.

6
7 The Institutional Brokers Estimate Survey (IBES) earnings growth
8 estimates result in an cost of equity estimate of 12.04% for the
9 comparable group. Zacks Corporate Earnings Estimator earnings
10 estimates result in a 12.69% equity cost estimate. Using 1989 to 1993
11 average "BxRs," computed from CompuStat data, results in an
12 unreasonable 7.24% equity cost estimate. Together with Value Line,
13 these estimators imply an estimated cost of equity of about 12.35%.

14
15 According to CompuStat data, the comparable group's earnings available
16 for common (before extraordinary items) were 12.49% of average
17 common equity over the years 1989 through 1993. However, during this
18 same period, overall interest rates and costs of capital have fallen
19 considerably. Moody's Aa rated public utility bonds average annual
20 yields were 9.55%, 9.64%, 9.09%, 8.54%, and 7.44% for 1989, 1990, 1991,
21 1992, and 1993 respectively. Thus, over the interval that the comparable
22 group was earning 12.5% on equity, Aa bond rates were approximately
23 8.85%. As of middle May of 1994, their yield was approximately 8.33%,
24 over fifty basis points lower. In middle August of 1993, after years of a
25 steady downward trend, Aa bond rates took a dive from about 7.25% to
26 about 6.80%, and then reversed direction to begin what has been a steady
27 upward trend. The earned returns have fallen dramatically from 14.2%

1 other companies represents the best tradeoff between similarity to
2 Ameritech and an adequate group size for purposes of analysis.

3
4 A number of financial estimates and statistics, drawn from the Value
5 Line reports and the CompuStat data base, are presented in Exhibit SRC-1
6 for Ameritech and the remaining 11 companies which constitute the
7 comparable group utilized in the Staff's analysis. The current yields are
8 derived from Value Line and Compustat data. The EPS and DPS growth
9 rates identified as "VLEG" and "VLDG" are the calculated compound
10 annual growth rates from the 1994 estimate to the estimate for the 1997-
11 99 time frame, evaluated at the midpoint of 1998. The growth rates
12 identified as "Box" are the rates reported in the Annual Rates box, as
13 "Est'd '90-'92 to '97-'99," and represent a longer perspective. These "Box"
14 growth rates produce cost of equity estimates of 13.23% and 8.79%. The
15 DPS estimate produces a low equity estimate of 8.79%, because, as with
16 current growth estimates, in general, it is biased downward for DCF
17 application. The increasing future earnings of the past few years for
18 these companies has led to a general medium term dividend growth
19 estimate bias downward, given the comparatively greater inertia of
20 dividends to earnings.

21
22 The "VLEG" and "VLDG" growth rates produce cost of equity estimates
23 of 15.04% and 9.82%, which is low and resultant from a downward biased
24 growth estimate. The 1988 to 1993 historic Value Line growth rates
25 result in cost of equity estimates of 5.64% for earnings and 9.70% for
26 dividends. The 5.64% estimate should be dismissed as it is inconsistent
27 with current costs of capital. The 9.70% estimate is low, consistent with

1 for 1992, with a 13.8% average for 1988 through 1992, to 7.9% for 1993.
2 Both bond yields and earned returns seem to have become less stable.

3
4 Another consideration is the relatively short time range of EPS
5 projections (generally no more than five years), as compared with the
6 "expected growth rate" of the DCF model, which assumes an infinite
7 horizon. If earnings growth is expected to significantly accelerate after
8 the projection period, the use of the EPS projections will understate the
9 true expected growth rate and produce a cost of equity estimate with a
10 downward bias. It has been argued that the growth of earnings from
11 cellular technology represents an instance of this type of bias. The Staff
12 recognizes the validity of this consideration, in that significant earnings
13 growth can be expected from cellular technology, but believes that some
14 of this growth is already captured in the earnings estimates of the period.
15 Also, care must be made to distinguish between absolute growth and
16 growth rates. S&P's projections of increasing numbers of cellular
17 subscribers also show a declining growth rate to this increase. S&P also
18 projects a decline in the monthly revenues per subscriber, as the industry
19 extends its penetration of the mass market.

20
21 Lastly, the Staff has also considered the question of the various classes of
22 risk facing the Applicant and companies in the comparable group.
23 Under the conditions present in the telecommunications industry, a fair
24 and reasonable return on capital employed in the public service may be
25 different than the overall cost of capital to a company. It cannot be
26 denied that the risk element has increased for providing local exchange
27 and other services whose rates are subject to regulatory authority.

1 However, telecommunications companies are investing in many
2 services, activities, and technologies for which a very high degree of
3 uncertainty exists regarding future profitability. The Staff believes that
4 the provision of those services whose rates are subject to regulatory
5 authority is a less risky undertaking than other activities, and that the
6 capital so employed is subject to less risk than the average level of risk
7 facing the company. Because of the Staff's cost of capital approach, Staff
8 recommendations have reflected, to a limited extent, some costs of
9 capital associated with non-regulated or non-utility operations. This is
10 unavoidable, and is not allowed to reflect on a significant portion of the
11 Staff rate of return recommendations. This case is no different.
12 Consideration of the uncertainty associated with this issue, allows for an
13 appropriate equity recommendation for a regulated enterprise. Future,
14 as well as, present involvement in competitive enterprise is taken into
15 account.

16
17 Based upon the considerations discussed above, the Staff believes that a
18 fair and reasonable return on common equity is between 11.85% and
19 12.85%. To provide for this return allowance must be made for issuance
20 and other costs, as shown on Table 2, resulting in an adjustment factor of
21 1.02029. Applying this factor to the baseline cost of common equity range
22 results in a recommendation of 12.09% to 13.11%.

11. Q. Has the Staff changed the cost of common equity used in the Staff Report?

A. Yes, the Staff's recommended common equity cost now reflects twelve month average stock prices for July 1993 through June 1994, rather than January 1993 through December 1993 as used in the Staff Report. The declared dividend over the last four quarters is updated to reflect the second quarter of 1994. Zacks and IBES were updated to June estimates. The Value Line issued April 15, 1994 is referenced (see Attachment). The adjustment for equity issuance costs now reflects retained earnings and total common equity balances as of December 31, 1993. The adjustment factor is now ^{12.09}/~~1.02029~~% rather than the ^{13.11}/~~1.02094~~% in the Staff Report (see Table 2). The resultant Staff-recommended cost of common equity range, incorporated in Table 1, is ~~11.99~~% to ^{12.09}/~~13.01~~%.

TABLE 2

Ameritech and Subsidiaries
Adjustment for Equity Issuance Costs
December 31, 1993
(Dollars in Thousands)

(1) Retained Earnings	\$ 3,455,300
(2) Total Common Equity	\$ 7,844,635
(3) Ratio of (1) to (2)	0.44047
(4) External Equity Ratio, w [1.0-(3)]	0.55953
(5) Generic Issuance Cost, f	3.50%
(6) Net Adjustment Factor (w/(1-f)) + (1-w)	1.02029
(7) Low End Equity Cost [11.85% x (6)]	12.09%
(8) High End Equity Cost [12.85% x (6)]	13.11%

1 12. Q. Why does the Staff recommend a cost of equity rate range?

2
3 A. The Staff recognizes an unavoidable tradeoff between certainty and
4 usefulness. On one hand, one could estimate the Applicant's cost of
5 equity with a more-than-sufficient degree of certainty to be within a
6 range of, possibly, four-hundred basis points. A four-hundred basis
7 point range is not, however, very useful or informative for equity cost
8 determination.
9

10 13. Q. What are common stock issuance costs?

11
12 A. Issuance costs include expenditures made directly by the company
13 issuing stock, for the purpose of issuing stock. Some of these
14 expenditures would be for filing with the SEC, accounting, legal
15 representation, printing, and exchange listing. Issuance costs also
16 include the underwriting spread, which is not an expenditure for the
17 issuing company. Basically, the underwriting spread is the difference
18 between the proceeds to the company and the price paid by the primary
19 purchasers of an issue. Issuance costs are the difference between the
20 amount paid by the primary purchasers and the net proceeds, which is
21 the amount available for investment by the company.
22

23 14. Q. Are you aware of any empirical measurement of the magnitude of
24 issuance costs?

25
26 A. Yes, published studies have provided some measurement of the
27 magnitude of underwriter spread relative to issue size. A study by

1 Borun and Malley (1) finds that underwriter spreads average 2.93% of
2 "initial price" for competitive bids brought by electric utilities. Logue
3 and Jarrow (2) examined spreads for large utilities. They found
4 magnitudes of 3.011% of offering price for competitive registered issues.
5 Finnerty (3) found an average spread of 3.34% of offering price (or
6 "closing price prior to offering") for electric utility issues. Pettway (4)
7 found an average cost of 3.6580% for competitively bid issues by electric
8 utilities, not only for underwriter spread but also for direct issuance
9 expenditures. Borun and Malley (1) found electric utilities paid 0.09% to
10 3.1% of "initial price," with an average of 0.4% for direct issuance costs
11 alone. Based on these studies, a reasonable estimate of underwriter
12 spread would be 3.0% of the offering price, and a reasonable estimate of
13 underwriter spread together with direct issuance costs would be 3.5%. In
14 its generic determination of cost of common equity for public utilities
15 issued January 3, 1990, the Federal Energy Regulatory Commission
16 adopted 3.18% as the percent issuance costs are of total common equity.

17
18 15. Q. Why is an adjustment for issuance cost necessary?

19
20 A. The cost of issuance is properly spread over the life of the stock issue. As
21 long as stock has been issued, an equity adjustment is necessary. It does
22 not matter what future financing plans have been prepared. The
23 investor requires a full return as long as the investor owns the stock.
24 The company issuing new equity, initially receives funds in the amount
25 of the equity issued. The amount of equity issued less the issuance cost is
26 the amount available to the company for investment, yet the investor is,
27 as required, paid a return on the full amount of investment. A greater

1 return, therefore, must be earned on the lesser amount that can be
2 invested. This is made possible by the Staff's adjustment to the baseline
3 cost of equity.
4

5 16. Q. Should an adjustment be made to the cost of equity to reflect dilution or
6 price pressure?
7

8 A. No. The investors pay the public offering price, which reflects any
9 dilution effect. The investors require a return on the amount they have
10 invested, not the amount that their investment would have entailed
11 had they been able to buy shares at market price prior to any public
12 announcement of stock issuance.
13

14 17. Q. Why has the Staff applied its equity issuance adjustment to the common
15 equity balance less retained earnings?
16

17 A. Consider a company at the stage of its initial public offering and later.
18 The funds collected through the initial public offering are used to
19 finance company operations. The earnings from company operations
20 that are not paid in dividends are retained and are available to fund
21 further operations. Retained earnings that are reinvested in company
22 operations earn a return for the initial investor. As long company
23 operations continue to grow, reinvested funds that are not paid as
24 dividends will compound over the life of the company, enhancing the
25 value of investors' holdings. The cost of issuance associated with the
26 initial public offering is money paid by investors on which the company
27 cannot earn a return. But as the company accumulates retained

1 earnings, the proportion of investors capital that is not available for
2 company operations is reduced. In this way, it becomes easier for the
3 company to meet or exceed the returns required by initial investors.

4
5 Subsequent stock offerings are subject to the same sequence. A fraction
6 of invested funds, issuance expense, cannot earn a return. The
7 difference, total investment less issuance, is equity and is available for
8 company operations. As retained earnings accumulate, the proportion
9 of invested capital that can earn a return increases. By applying its equity
10 issuance adjustment to the common equity balance less retained
11 earnings, the Staff allows a premium to be earned to compensate for
12 invested funds the company could not commit to operations, but does
13 not apply that premium to retained earnings, which are available in
14 their entirety for reinvestment. As the proportion of investment which
15 can earn a return increases, the adjustment commensurately decreases.
16 Retained earnings increases the available pool of capital, but issuance
17 expense, which is not available to the company, increases only with new
18 stock issuance. The adjustment increases commensurately with the
19 occurrence of new stock issuance, by virtue of the retained earnings
20 proportion of equity decreasing.

21
22 The Applicant's implied argument that the proportion of funds not
23 available would remain the same, over the years, as the proportion of
24 the issuance cost to the initial funds raised publicly, would be true only
25 in the absence of an adjustment. With an adjustment, the full return is
26 earned in the first and every year. Although a portion of the initial
27 investment is absent and always remains absent, the money the absent

1 portion would have earned goes into the pool of available funds every
2 year by virtue of the adjustment. The money attained by virtue of the
3 adjustment is compounded in subsequent years. Because only the
4 nominal amount of the issuance cost is not available, its deleterious
5 effect on earnings decreases over the years in line with the decrease in
6 the adjustment.

7
8 18. Q. Are the current DCF estimates for Ameritech useful for DCF analysis?

9
10 A. Currently, these estimates may be useful. At the time of the Staff Report,
11 the average DCF estimate for Ameritech was 10.04%. At present the
12 average is 12.21%. The Staff uses comparable group DCF equity estimates
13 in its DCF analysis, and not Ameritech alone, because the results for
14 Ameritech are too volatile over time, and a group is likely to produce
15 significantly less volatile results.

16
17 19. Q. Why does the Staff not apply a quarterly DCF formulation?

18
19 A. Were the Staff to apply a quarterly DCF, it would also account for the
20 effect of monthly receipts, which the Staff believes would counteract the
21 effect of quarterly dividends on the cost of equity.

22
23 20. Q. What is the result of CAPM analysis?

24
25 A. The average 30 year Treasury bond yields over the past three, six, nine,
26 and twelve months are 7.36%, 6.96%, 6.69%, and 6.60%. These average to
27 6.90%. Adding to that the product of the .75 beta for Ameritech and the

1 7.2% premium of total equity returns over 20 year Treasury yields,
2 results in an cost of equity estimate of 12.30%. The average difference
3 over the last year between 30 year and 20 year Treasury yields is .513%.
4 Subtracting half that difference from the 12.30% equity estimate, to
5 account for use of the 20 year premium with the 30 year yield, by
6 interpolation, results in a corrected estimate of 12.04%. Adding .25% for
7 issuance cost brings the estimate to 12.29%, which is within the Staff's
8 recommended range.
9

10 21. Q. Why are long term yields correctly used for CAPM analysis?
11

12 A. Equity investments are, by nature, long term investments, regardless of
13 the investor's horizon. Short term investors accept the possibility of
14 price losses, when the market devalues a stock, in anticipation of
15 conditions or events thought to occur after the short term horizon.
16 Equity investors accept risks associated with changes in inflation and
17 interest rates that may occur in the long term. Short term yields would
18 improperly omit much of the effect of these risks on the CAPM equity
19 estimate.
20

21 22. Q. Is the cost of equity altered by alternative regulation provisions?
22

23 A. Possibly. The regulatory climate throughout the country, over the last
24 few years, has changed. Alternative regulation for telephone companies
25 has been implemented across the country. As such, market prices would
26 reflect alternative regulation. No explicit cost of equity adjustment
27 should be made, therefore, to compensate for an alternative regulation

1 effect, regardless of what the proper magnitude and direction of such an
2 effect would be.

3
4 23. Q. Would you respond to AARP objection number 6?

5
6 A. Yes. The Staff are using a parent-consolidated capital structure, which
7 incorporates the capital structures of all Ameritech subsidiaries. These
8 subsidiary capital structures would be incorporated whether they are
9 high-equity or low-equity. The argument made in the objection that the
10 capital structure is, "inappropriate to the extent that it supports lower
11 cost capital structures (greater debt) in the Ameritech non-LEC
12 subsidiaries," would apply to a stand alone capital structure. It is not,
13 however, an argument that is pertinent to this case, as Staff uses a
14 parent-consolidated capital structure.

15
16 24. Q. Does this conclude your testimony?

17
18 A. Yes, it does.

REFERENCES

- (1) Borun, Victor M., and Malley, Susan L., "Total Flotation Costs for Electric Company Equity Issues," *Public Utilities Fortnightly*, February 20, 1986, pp. 33-39.
- (2) Logue, Dennis E., and Jarrow, Robert A., "Negotiations vs. Competitive Bidding in the Sale of Securities by Public Utilities," *Financial Management*, Autumn 1978, pp. 31-39.
- (3) Finnerty, John D., "How to Lower the Cost of Floating A New Stock Issue," *Public Utilities Fortnightly*, March 17, 1983, pp. 25-29.
- (4) Pettway, Richard H., "A Notice on the Flotation Costs of New Equity Capital Issues of Electric Companies," *Public Utilities Fortnightly*, March 18, 1982, pp. 68-69.

Part III SRC-1
AMERITECH AND SUBSIDIARIES
 Comparable DCF Equity Cost Analysis

Stock Prices (\$), Monthly High over Monthly Low) From Dow Jones Retrieval:	AIT	BEL	BLS	NYN	PAC	SBC	USW	AT	CSN	GIR	KTC	SNG	AVR
1/93	40.68750	60.12500	58.50000	46.00000	49.75000	40.75000	47.75000	28.37500	23.50000	37.12500	22.00000	35.87500	
1/93	38.81250	56.62500	54.37500	44.81250	48.00000	38.62500	45.62500	25.50000	19.75000	35.25000	20.50000	34.00000	
1/93	43.56250	64.12500	59.25000	46.37500	55.37500	45.62500	47.37500	29.87500	21.62500	36.87500	21.06250	37.00000	
1/93	40.06250	55.62500	54.12500	43.50000	47.87500	39.62500	44.50000	26.00000	19.12500	34.62500	20.62500	34.50000	
1/93	45.56250	64.87500	62.87500	48.87500	56.50000	47.00000	49.37500	31.25000	21.37500	39.00000	24.37500	37.12500	
10/93	42.00000	60.87500	58.75000	45.62500	52.62500	41.75000	46.00000	28.75000	19.75000	36.25000	22.00000	34.87500	
11/93	41.56250	66.00000	61.00000	46.50000	55.62500	43.75000	50.25000	30.87500	23.62500	39.87500	25.12500	38.12500	
11/93	42.68750	64.50000	63.50000	43.75000	52.12500	39.62500	47.50000	27.50000	21.00000	37.12500	22.50000	35.00000	
2/93	38.00000	57.00000	54.12500	40.37500	53.00000	39.87500	50.75000	29.25000	24.00000	39.62500	24.56250	37.12500	
2/93	40.37500	62.00000	59.75000	43.00000	58.62500	45.25000	45.75000	25.75000	20.12500	35.87500	21.68750	33.87500	
1/94	37.75000	59.00000	56.75000	40.12500	54.00000	40.37500	47.25000	28.62500	17.37500	37.87500	24.06250	37.50000	
1/94	42.00000	59.62500	61.50000	41.37500	58.00000	42.00000	46.25000	29.50000	18.87500	35.25000	22.43750	36.25000	
2/94	36.37500	53.25000	53.62500	38.37500	52.50000	38.00000	42.12500	26.62500	17.12500	33.25000	20.25000	33.75000	
2/94	42.00000	56.37500	60.87500	41.00000	57.62500	41.75000	43.75000	28.75000	18.50000	34.75000	22.00000	34.62500	
3/94	39.87500	52.25000	53.00000	36.62500	54.00000	36.75000	39.00000	26.12500	15.50000	31.50000	21.00000	30.75000	
3/94	42.25000	54.87500	58.37500	37.62500	55.75000	41.75000	41.25000	27.62500	17.00000	33.25000	21.81250	32.25000	
1/94	36.75000	51.00000	53.62500	34.25000	51.00000	38.50000	38.50000	25.00000	15.50000	30.00000	20.50000	28.62500	
1/94	43.12500	55.25000	63.50000	37.25000	54.00000	44.37500	43.75000	27.00000	17.50000	33.62500	23.00000	32.62500	
3/94	36.25000	49.00000	55.50000	33.25000	30.62500	36.62500	39.12500	24.00000	15.37500	29.50000	20.81250	28.25000	
3/94	40.50000	54.37500	61.12500	39.25000	32.00000	41.62500	41.25000	27.50000	16.87500	30.50000	25.25000	32.37500	
5/94	37.00000	50.12500	57.25000	35.87500	30.00000	38.50000	36.25000	25.37500	16.00000	30.50000	20.87500	29.12500	
5/94	41.87500	56.75000	62.25000	39.75000	31.50000	43.75000	43.37500	27.00000	17.50000	32.25000	24.62500	33.75000	
5/94	37.87500	52.87500	59.25000	35.37500	29.87500	40.62500	39.75000	25.00000	15.87500	29.62500	22.12500	30.50000	
Average \$	40.41406	57.30729	58.31250	40.90885	49.15104	41.36458	44.34896	27.36979	18.94792	34.61458	22.35938	33.85938	
Latest Four Quarterly Dividends, (\$) From Value Line and Compustat:													
	0.46000	0.67000	0.69000	0.59000	0.54500	0.37750	0.53500	0.20000	0.20000	0.47000	0.19250	0.44000	
	0.48000	0.67000	0.69000	0.59000	0.54500	0.37750	0.53500	0.22000	0.20000	0.47000	0.20250	0.44000	
	0.48000	0.67000	0.69000	0.59000	0.54500	0.37750	0.53500	0.22000	0.20000	0.47000	0.20250	0.44000	
	0.48000	0.69000	0.69000	0.59000	0.54500	0.39500	0.53500	0.22000	0.20000	0.47000	0.20250	0.44000	
Annual Dividend, (\$):													
	1.90000	2.70000	2.76000	2.36000	2.18000	1.52750	2.14000	0.86000	0.80000	1.88000	0.8000	1.76000	
Yield:	0.04701	0.04711	0.04733	0.05769	0.04435	0.03693	0.04825	0.03142	0.04222	0.05431	0.03578	0.05198	
3XR from Compustat:													
3XR 89	0.05842	0.02455	0.04102	(0.00378)	0.06786	0.04735	0.05396	0.08965	0.09290	0.05526	0.04014	0.08669	
3XR 90	0.05353	0.04780	0.02790	0.01112	0.03977	0.04350	0.05122	0.08361	0.06895	0.05990	0.01645	0.03354	
3XR 91	0.03332	0.04413	0.02966	(0.02413)	0.03344	0.04555	(0.02148)	0.07211	(0.02479)	0.00841	0.04998	0.02864	
3XR 92	0.05346	0.04183	0.04281	0.04836	0.04243	0.05740	0.04295	0.07915	(0.03349)	0.01604	0.03049	0.05440	
3XR 93	0.06921	0.04053	(0.02003)	(0.13413)	(0.07046)	0.07470	(0.04758)	0.07598	(0.20717)	(0.07940)	0.04323	(0.13309)	
3XR 5AV	0.05359	0.03977	0.02427	(0.02051)	0.02261	0.05370	0.01581	0.08190	(0.02072)	0.01184	0.03605	0.01404	
COESUR	0.10312	0.08876	0.07275	0.03599	0.06796	0.09261	0.06483	0.11589	0.02063	0.06680	0.07312	0.06675	0.07243

Table SRC-1
(Continued)

	AIT	BEL	BLG	NYN	PAC	SRC	USW	AT	CSN	GIE	RTC	SNG	AVR
VL DIV '94 (\$)	1.94	2.76	2.76	2.36	2.18	1.96	2.14	0.88	0.80	1.90	0.83	1.76	
VL DIV '98 (\$)	2.90	3.08	3.50	2.75	2.40	1.90	2.35	1.25	0.96	2.40	1.15	1.85	
VLDG	0.10051	0.0742	0.05938	0.03823	0.02404	0.04929	0.02340	0.08774	0.04558	0.05840	0.08152	0.01247	
	0.15224	0.07583	0.10952	0.09813	0.06946	0.08804	0.07279	0.12192	0.08973	0.11589	0.12022	0.06510	0.09824
VL EARN '94 (\$)	2.55	3.65	4.25	3.20	2.60	2.65	2.90	1.65	0.85	2.35	1.40	2.55	
VL EARN '98 (\$)	4.15	4.90	5.80	4.50	3.65	3.70	4.30	2.60	2.00	3.35	2.20	3.15	
VLEG	0.12175	0.07363	0.07773	0.08523	0.08480	0.08344	0.08848	0.11368	0.21392	0.08864	0.11300	0.05283	
	0.17449	0.12421	0.12875	0.14784	0.13292	0.12345	0.15148	0.14868	0.26517	0.14776	0.15282	0.10755	0.15043
IBES	0.061	0.072	0.066	0.050	0.048	0.083	0.066	0.099	0.073	0.082	0.108	0.054	
	0.11088	0.12251	0.11646	0.11057	0.09448	0.12299	0.11744	0.13353	0.11830	0.14077	0.14764	0.10879	0.12036
ZACKS	0.059	0.069	0.069	0.051	0.044	0.080	0.064	0.112	0.139	0.078	0.119	0.053	
	0.10879	0.11937	0.11960	0.11163	0.09030	0.11988	0.11534	0.14694	0.18709	0.13655	0.15904	0.10773	0.12686
VL "B" '98	0.30120	0.37143	0.39655	0.38889	0.34247	0.48649	0.45349	0.51923	0.52000	0.28358	0.47727	0.41270	
VL "R" '98	0.19500	0.19000	0.16000	0.19500	0.14500	0.18500	0.20500	0.20500	0.19000	0.21000	0.16000	0.15500	
VLBXR '98	0.05873	0.07057	0.06345	0.07583	0.04966	0.09000	0.09297	0.10644	0.09880	0.05955	0.07636	0.06397	
	0.10851	0.12101	0.11378	0.13790	0.09621	0.13025	0.14570	0.14121	0.14519	0.11710	0.11488	0.11927	0.12425
DIV '93 (\$)													
DIV '88 (\$)	1.38	2.04	2.36	2.02	1.76	1.24	1.76	0.38	0.35	0.99	0.55	1.28	
DIV '93 (\$)	1.86	2.68	2.76	2.36	2.18	1.51	2.14	0.82	0.80	1.30	0.68	1.52	
										1.85	0.80	1.76	
EARN '83 (\$)													
EARN '88 (\$)	2.21	3.33	3.51	3.32	2.81	1.77	2.85	0.59	0.66	1.58	0.85	1.98	
EARN '93 (\$)	2.67	3.39	3.58	3.12	2.80	2.38	2.72	1.04	1.31	1.77	1.05	2.50	
								1.39	0.86	2.20	1.20	2.53	
CSD	0.05970	0.05457	0.03131	0.03111	0.04280	0.09940	0.03910	0.09110	0.07133	0.07056	0.03250	0.02932	
G10D								0.07691	0.08267	0.06252	0.03747	0.03185	
CSE	0.03782	0.00357	0.00395	(0.01243)	(0.00071)	0.06006	(0.00834)	0.05802	(0.08417)	0.04350	0.02481	0.00239	
G10E								0.08569	0.02647	0.03310	0.03448	0.02451	
5D	0.10952	0.10426	0.08013	0.09060	0.08905	0.07778	0.08924	0.12538	0.11657	0.12871	0.06945	0.08282	0.09696
10D	0.04701	0.04711	0.04733	0.05769	0.04435	0.08693	0.04825	0.11075	0.12838	0.12023	0.07459	0.08548	
5E	0.08661	0.05085	0.05147	0.04455	0.04361	0.09921	0.03847	0.09126	(0.04550)	0.10017	0.06148	0.05449	0.05639
10E	0.04701	0.04711	0.04733	0.05769	0.04435	0.08693	0.04825	0.11981	0.06981	0.08921	0.07150	0.07777	
VL BOX EARN	0.080	0.065	0.095	0.060	0.040	0.095	0.075	0.125	0.115	0.080	0.130	0.040	
VL BXR	0.13077	0.11518	0.14683	0.12115	0.08613	0.13544	0.12687	0.16035	0.16208	0.13866	0.17043	0.09406	0.13233
VL BOX DIV	0.085	0.020	0.040	0.030	0.015	0.045	0.015	0.085	0.025	0.050	0.070	0.010	
VL BXD R	0.13601	0.06806	0.08922	0.08942	0.06002	0.08359	0.06398	0.11909	0.06828	0.10703	0.10828	0.06250	0.08796

ATTACHMENT

AMERITECH NYSE:AT		RECENT PRICE	37	PE RATIO	15.3	Trailing 12 Months	RELATIVE PE RATIO	0.98	DIVID YLD	5.2%	VALUE LINE	749		
TELEPHONE BUSINESS (Telephone Price Index - 1981=100)		High	11.1	13.0	17.8	25.4	25.0	24.5	34.1	34.9	37.0	45.6	42.3	Target Price Range 1997 1998 1999
SAFETY (Share 1 Highest to 6 Lowest)		Low	10.4	10.4	12.4	16.3	18.6	20.6	23.4	26.3	27.9	28.1	35.1	
BETA .75 (1.00 = Market)														
1997-99 PROJECTIONS														
Price		75	Gain	(+105%)	23%									
Low		60	Gain	(+40%)	17%									
Market Decisions														
J A S O N D J F M														
Index		0 0 1 0 0 0 0 0 0												
Close		2 2 1 0 4 0 0 0 0												
Open		2 2 2 0 2 0 0 0 0												
Investment Decisions														
30X 30X 30X														
Index		120 142 118												
Close		128 132 141												
Open		174078 178182 178340												
Percent		4.6												
Change		4.6												
Trend		2.0												
Options: CBOE														
American (Information Technologies) Corp.														
(Ameritech), is one of the seven regional holding companies resulting from the breakup of the American Telephone & Telegraph Co. on January 1, 1984. One share of Ameritech stock was exchanged for 10 shares of AT&T (pre-divestiture) common stock. The stock began trading on a what-is-known basis on November 21, 1983. "Regular" trading of Ameritech shares began on February 16, 1984.														
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995		VALUE LINE INC. 97-98												
14.18 15.44 16.40 17.39 18.29 18.99 20.17 20.29 20.84 21.42 22.25 22.25		Revenue per share 27.15												
1.87 4.58 4.91 5.43 5.50 5.62 5.82 5.90 6.25 6.81 6.80 7.70		"Cash Flow" per share 3.85												
1.70 1.84 1.97 2.12 2.21 2.30 2.37 2.32 2.51 2.67 2.58 2.90		Earnings per share 4.15												
1.00 1.10 1.20 1.28 1.38 1.49 1.61 1.72 1.78 1.88 1.94 2.25		Dividend per share 2.90												
2.59 3.41 3.64 3.58 3.47 3.68 4.00 4.04 4.34 3.83 3.48 3.49		CapX Spending per share 2.30												
12.04 12.73 13.33 13.88 14.57 14.22 14.63 15.18 12.94 14.35 15.28 16.70		Book Value per share 21.40												
58.58 58.11 57.05 56.22 55.40 54.58 53.27 53.40 54.34 54.84 55.68 55.40		Common Share Outstanding 574.15												
8.1 8.1 10.7 10.5 10.3 12.5 13.0 13.4 12.9 14.7		Avg Dividend per Share 18.0												
.84 .86 .73 .70 .66 .66 .67 .66 .78 .87		Relative P/E Ratio 1.25												
5.8% 7.4% 5.7% 5.6% 6.0% 5.2% 5.2% 5.5% 5.9% 4.7%		Avg Annu Div'd Yield 4.6%												
CAPITAL STRUCTURE as of 12/31/93														
Total Debt \$392.0 mil. Due in 5 Yrs \$293.4 mil.														
LT Debt \$400.4 mil. LT Interest \$283.8 mil.														
Total \$108.6 mil. capitalization less-														
(LT interest current; 6.8% total interest; coverage 5.6x)														
Leverage, Unleveraged Annual return 283.1 mil.														
Firm's Liability None														
Firm's Debt None														
Common Stock 548,543,000 shs.														
(adjusted for 2-for-1 stock split, paid 12/4/94)														
CURRENT POSITION														
1991 1992 1993														
Cash Assets 25.3 92.4 155.9														
Other Assets 2500.9 2478.6 2470.8														
Current Assets 2526.1 2571.0 2626.7														
Assets Payable 1405.0 1358.2 1210.6														
Debt Due 1973.2 2117.8 2801.6														
Other 1968.8 1785.1 1873.1														
Current Liab. 3072.0 3258.1 3380.0														
P/E Chg. Cov. 383% 488% 591%														
ADDITIONAL RATES														
Post 10 Yr. Post 5 Yr. Post 1 Yr.														
Dividends 4.5% 4.5% 4.5%														
"Cash Flow" 4.0% 4.0% 4.0%														
Earnings 4.0% 4.0% 4.0%														
Dividends 7.5% 7.5% 7.5%														
Book Value 1.5% 1.5% 1.5%														
QUARTERLY REVENUE (\$ mil)														
Mar.31 Jun.30 Sep.30 Dec.31														
1991 2628 2742 2705 2743 10818														
1992 2691 2808 2813 2843 11153														
1993 2797 2950 2947 3018 11710														
1994 2939 3108 3108 3140 12280														
1995 3123 3278 3278 3329 12880														
EARNINGS PER SHARE (\$)														
Mar.31 Jun.30 Sep.30 Dec.31														
1991 .34 .58 .57 .53 2.22														
1992 .53 .64 .62 .62 2.51														
1993 .58 .72 .67 .72 2.67														
1994 .65 .85 .86 .85 2.55														
1995 .65 .90 .85 .86 2.38														
QUARTERLY DIVIDENDS (\$ mil)														
Mar.31 Jun.30 Sep.30 Dec.31														
1991 .35 .35 .35 .35 1.50														
1992 .425 .425 .425 .425 1.70														
1993 .44 .44 .44 .44 1.76														
1994 .46 .46 .46 .46 1.84														
1995 .48														
BUSINESS: Ameritech is a holding co. for, INQ, MCH, CH, and WE Bells & other units. Provides communications services directly to 75% of population in these states. In 1993 Ameritech became 1st regional holding co. in other cellular phone service (21 million POP). Assets listed: 17.5 million 68% of line digital '93 rev. broadband local service, 43% long-distance, 12% network access, 23% other, 22%. Purchased 48.9% share in Telecom Corp. of New Zealand on 6/90 (now 25% after additional equity offering). Customer installed equipment: 281 '93 cov. rate 7.4%. Has 57,182 employees, 1.04 million subscribers. Chairman: William L. Welton, Int'l. Chairman, Address: 30 South Western Drive, Chicago, Illinois 60606. Telephone: 312-750-6000.														
Ameritech's first-quarter earnings comparison will not be a good one. The company is in the midst of a labor buyout plan, whereby it is offering incentives to various workers in return for their early retirements. The cost of these incentives will be charged against first-quarter earnings to the tune of about 60¢ per share, creating a poor comparison for that period and causing share net for the year to likely fall below 1993's tally. Going forward though, we expect positive earnings comparisons for Ameritech. The company refinanced some \$1.6 billion in long-term debt last year. The interest expense savings as well as the absence of refinancing costs should add about a dime to '94's bottom line. Also, equity income comparisons from the company's Telecom of New Zealand subsidiary will benefit considerably from the absence of restructuring expenses incurred last year. Starting in 1996, we think earnings growth ought to outdistance historical trends. Ameritech is actively seeking to lift the restrictions that prohibit it from offering long-distance service, a business whose similar growth rate exceeds that of Ameritech's core local exchange business. Ameritech could easily provide long distance within the framework of its existing network facilities and its advertising would likely be attached to monthly bills, a more cost-effective medium than the TV spots currently being utilized by the dominant long-distance carriers. Meanwhile, the company plans to gradually replace most of the copper in its network with more efficient broadband fiber-optics. This will generate substantial savings in maintenance and switching expenses and also allow the company to provide comprehensive interactive multimedia services to its customers. Still, for now... Ameritech stock isn't timely. However, long-term investors may want to take a closer look. The strategic steps that Ameritech is presently taking are likely to have a detrimental impact on near-term results but should enhance the long-term value of the stock. Thus, total returns for the pull to 1997-99 look worthwhile, especially if this equity's superior quality is also taken into consideration. Philip S. Mulqueen April 15, 1994														

(A) Figures from before divestiture (11/84) not comparable to post-divestiture estimates & results. (B) Based on avg. 5% rise, out. Ext. non-recurring costs '88, '91, '94, '95, '96, '97, '98, '99. (C) Next divd meeting about June 15. Goes out about June 25. Divd out. goes about 1st of Jan., April, July, and Oct. a Divd payment, own available. (D) In millions, act. for stock sales.

Company's Financial Strength

Share's Price Stability	35
Price Growth Performance	35
Earnings Predictability	100

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing Prepared Testimony of Stephen R. Chaney, submitted on behalf of the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, or hand delivered to the parties of record on this 3rd day of August, 1994.



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