# Capital Recovery in the Telecommunications Industry: Issues for the '80s

J. Edward Laboy

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J. Edward Laboy

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Project Director

John C. LeGates

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J. Edward Laboy is staff manager in the capital recovery division of NYNEX Service Company.

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J. Edward Laboy

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#### **Executive Summary**

- The controversy over capital recovery is surfacing as a visible issue in the telecommunications industry
  as it adapts to the world after the Bell system divestiture. The industry claims that regulatory
  prescriptions of depreciation rates have been too low, understating past expenses and thus raising
  concern that much of the investment in the telephone companies may never be recovered.
- Increasing competition is forcing the telephone industry to seek prompt recovery of past expenditures
  or face severe financial difficulties. Telephone companies faced an under-recovery of \$25 billion as of
  1985, increasing at \$2-\$3 billion per year.
- · The confluence of three forces focuses attention on the capital recovery controversy:
  - the motivation to keep short-term prices low, which depends upon the expectation for continuing monopoly;
  - the removal of monopoly and growth of competition which conflict with the expectation of continuing monoploy;
  - technology which both fosters and feeds on competition.
- The method of establishing prices constitutes a fundamental difference between the non-regulated companies and the regulated sector. In a competitive environment, prices and revenues are determined by market conditions, not just by costs. Prices for regulated utilities are set to recover expenses allowed by the regulators -- not by market conditions as for unregulated companies. Higher depreciation expenses mean, at least in the short run, higher revenue requirements, which in the regulated world generally mean higher prices. What happens when regulated and unregulated companies meet in the marketplace?
- Thus in recent years, federal prescription of telephone depreciation has become a source of controversy.
   Different parties stand to gain or lose depending upon the timiing and direction of regulated capital recovery.
- Underlying the capital recovery controversy is the question: Should there be more regulation, less
  regulation, or should the industry be deregulated? Gradually less regulation, fostering more
  competition, has been the approach at the FCC. The telecommunications industry, particularly those
  companies that are regulated, would want deregulation more quickly.

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#### INTRODUCTION

The controversy over capital recovery is surfacing as a visible issue in the telecommunications industry as it continues to adapt to the world after the Bell system divestiture. Once relegated to a handful of mathematicians and regulatory experts, the issue is getting increasing attention from policymakers and company officers. The reason for the increased attention is the industry claim that regulatory prescriptions of depreciation rates have been too low, understating past expenses and raising the specter that much of the investment in the telephone companies may never be recovered. Accordingly, the companies are seeking substantial revenue increases to catch up, but some regulators—the Federal Communications Commission and the state public service commissions—are resisting: They don't agree that some problems are so large or so urgent, and they resist the price increases which the fix usually brings.

Much is at stake. Resolution of this issue could determine such fundamental questions about the industry as what kinds of services are provided, at what prices, to what customers, and by what firms — including what role the existing telephone companies will play in the future of the industry.

Capital recovery can be explained with a simple description of expenditures and receipts. A firm spends money to provide goods and services and receives money for selling those goods and services. If the firm receives more money than it spends, it makes a profit; if it

receives less money than it spends, it suffers a loss. Pretty straightforward.

Expenditures on equipment expected to last more than one year -- capital equipment -- are not, however, all treated as expenses in the current year, but rather over several years.

The idea is to recognize these capital expenditures over the years in which the equipment can generate receipts instead of in the year the expenditures are actually made. If the equipment stops generating receipts earlier than expected, the unrecognized expenditures may have to be recognized all at once, which could produce a substantial loss.

The process of recovering expenditures on capital equipment is called capital recovery, and the expenses recognized over time are depreciation expenses. The telephone companies believe they have been recovering capital too slowly because depreciation expenses have been too low, leaving them billions of dollars behind.

Throughout the modern history of the telephone industry, the opportunity for full repayment of capital has been a fundamental economic expectation within the regulated utility structure. In contrast to some other nations, which often have provided telephone service as a governmental function, usually as part of the postal operations, the United States' system has grown as a private business with federal and state commissions playing a regulatory role. For most of the industry's history, it has operated as a government-regulated monopoly, with prices for service containing a charge to cover capital recovery.

In developing the nationwide telephone system, regulators and the industry together had a grand plan of "universal service," whereby

affordable telephone service would be offered to every household. To accomplish this, they developed a series of "subsidies," so that telephone service that otherwise might be very expensive to provide would not be priced expensively. Often-cited examples are the subsidies that toll service (long distance) provides local service or that business service provides residence or that urban service provides rural service.

However, while these subsidies have received much attention among policymakers, what may not be so familiar is another subsidy, an intergenerational subsidy whereby past customers in the aggregate may not have been paying the total costs of the telephone service.

Specifically, the industry contends that the costs that have not been recovered are the capital costs, the costs of enormous investment in equipment that now totals over \$200 billion nationwide because the equipment has been depreciated too slowly to match its economic life.

Under financial regulation, prices are set by first determining expenses of providing service, including a return to investors and creditors. Depreciation is one of those expenses; one way to keep prices low would be to prescribe low depreciation expenses, pushing the burden of capital recovery off to the future. This approach would set depreciation lives that are too long, recovering the investment in capital equipment at a rate below that of the equipment's consumption. If longer-than-actual-service lives are prescribed, ratepayers under regulated monopoly must bear the cost of plant that is no longer useful, at the same time paying the cost of new plant deployed to replace the obsolete plant. Hence, the intergenerational subsidy continues whereby future customers are expected to subsidize past and present customers.

Under the plan of universal service, future customers were expected to pay because the telephone industry was viewed as a regulated monopoly. Those customers would have no choice but to pay for past expenses because no competitive alternative would exist. But now this circumstance has changed dramatically. Competition is here, fostered by regulatory policies to encourage its growth.

Increasing competition is forcing the telephone industry to recover past expenditures promptly or realize the fate of any company that cannot recover its expenditures -- severe financial difficulties.

Some regulators are recognizing a problem. As FCC commissioner Mimi Dawson said, "these expenditures on capital equipment are not being recovered and telephone companies are now faced with an under recovery of some \$25 billion that is increasing at a rate of \$2-\$3 billion per year." But the official position of the Federal Communications Commission is that the deficiency is \$15 billion, not \$25 billion; while a problem does exist, the repair is in place and the telephone companies should be financially whole by the early 1990s. In fact, the FCC introduced changed methods in the early 1980s that the industry supported and that led to higher depreciation rates. But the companies say the FCC did not go far enough, and they will not get whole without further changes.

An ironic difficulty the companies face is that their financial statements appear strong; especially the regional companies that were spun off from AT&T are doing better than most observers had expected. This seems to belie any claim of potential hardship. However, one might counter that profits certainly ought to look good if depreciation expenses are understated.

Business and government alike are often criticized for thinking short term and failing to recognize and care for longer-term consequences. Company analysts see danger coming in a few years even though current financial results are satisfactory and suggest using that vision to prevent a future crisis.

The telephone industry estimates that it has a \$25 billion shortfall,\* an amount representing over 40% of its equity investment. If the
shortfall is not recovered and instead is charged to stockholders,
investors might be disinclined to invest in the telephone business. The
telephone companies are concerned that if this scenario is carried to
its conclusion, there would be no telephone industry as it is known
today. Such a result might be bad for existing firms, but may be good
for firms replacing them. Customers would be better or worse off
depending on the performance of the new firms.

How did the telephone companies get into this predicament?

Certainly not from administrative neglect. Historically, regulated industries devoted more management time, regulatory attention, and analytical resources to depreciation practices than did any other group of industries. Regulated telephone companies spend approximately \$75 million to \$100 million annually in developing depreciation rates. No comparable sum is spent in non-regulated industries.

Why do these firms have what they see as a capital recovery problem when so much time and attention have been devoted to depreciation practices? The answer seems to be in the confluence of three forces.

The first is the motivation to keep short-term prices low, which depends

<sup>\*</sup> See Chapter 1, Section B, for a discussion of this shortfall.

upon the expectation of continuing monopoly. The second force, the removal of monopoly and growth of competition, directly conflicts with the expectation of continuing monopoly. The third force is technology, which both fosters and then feeds on competition. This interaction makes actual equipment lives shorter so that even the best estimates used for depreciation lives may be rapidly outdated.

It may help to examine the role depreciation plays for unregulated\* companies compared to the role depreciation plays in the development of telephone company prices.

In both regulated and unregulated industries, for financial statement reporting purposes, depreciation represents an estimate of the loss in economic value of the embedded capital assets due to wear and tear, obsolescence, and other factors that reduce actual service lives.\*\*

In unregulated industries the lives of individual assets are relatively well standardized, and some companies use a variety of accelerated depreciation methods (which provide for greater recovery in early years and relatively lower recovery in later years) may be used to compute annual depreciation expense. The specifics are determined by the companies' accountants.

<sup>\*</sup> In the context of this paper, the terms unregulated companies and unregulated industry mean unregulated financially -- not subject to price and earnings regulations as are regulated utilities.

<sup>\*\*</sup> Actual life is the length of time the equipment is in service. The life used for depreciation usually differs from the actual life either because estimates are seldom perfect or because there is a policy motivation to depreciate faster or slower.

In a competitive environment, an asset's depreciation is fully recognized during its service life with matching revenues to cover the associated expense if the firm is to be profitable. That life is determined by management guided by generally accepted accounting principles (GAAP). Prices and actual revenues, however, are determined by market conditions, not just by costs; thus there is only a loose connection between depreciation expenses and the prices charged to customers.

By contrast, depreciation in regulated industries has at least two significant differences. First, the depreciation rates used by telephone companies for both ratemaking and financial reporting purposes are those prescribed by the Federal Communications Commission and state regulatory commissions.\* The companies and their accountants are not free to set depreciation rates on their own. Second, and perhaps a more important contributor to the underdepreciation condition is the role that depreciation plays in determining a telephone company's revenue requirement and price levels. Here the connection between expenses and prices is direct because prices for regulated utilities are based specifically on expenses allowed by the regulators — not on market conditions as with unregulated companies. Higher depreciation expenses mean, at least in the short run, higher revenue requirements, which in the regulated world generally mean higher prices.

What happens when these two worlds of regulated and unregulated companies meet in the marketplace? Will the new unregulated competitor benefit or be harmed by regulated depreciation rates that may have been

<sup>\*</sup> Some of the interexchange companies, such as AT&T and MCI, are presently using GAAP for financial reporting.

too low? Will the telephone companies benefit or be harmed? The answers depend on timing. We have seen briefly, and will see more later, that relatively low depreciation and resulting prices in early years tend to create relatively higher depreciation and prices in later years. Thus, if a regulated firm is in the stage during which its prices are lower than they otherwise would be, a new competitor may have difficulty matching the price and gaining a market foothold. On the other hand, if the regulated firm is burdened by higher prices than it would otherwise be, other firms can easily compete, and the regulated firm will lose customers.

The telephone companies foresaw a period of time in which they thought they would have sufficient market power to catch up, but by the mid-1980s they see this time eroding: They are seeking fast action to increase prices while the marketplace will still sustain them. The regulators, however, are motivated to protect the monopoly customers, the very ones from whom the companies have a chance of recovering past costs.

Capital recovery also produces cash flow that can be used for investment in new capital equipment. Therefore, faster capital recovery should lead to more rapid modernization of telephone company equipment. This outcome should please those who want such modernization, such as customers who want new services from the telephone company, company management that wants to be a market leader, and regulators who want to promote up-to-date telecommunications facilities. It should displease others, such as competitive firms who would like to see the telephone companies less modern and public officials who prefer to see those competing firms get some technological advantage.

As we can see, different parties stand to gain or lose depending upon the timing and direction of regulated capital recovery. The remainder of this paper will examine the parts of this issue in greater detail.

For most issues discussed in this paper the cutoff date is December 31, 1985. However, because of their importance, the following subjects are updated:

- the preemption issue, resolved by the U.S. Supreme Court in May 1986;
- the new Uniform System of Accounts adopted by the FCC in May
   1986;
- 3. the Tax Reform Act of 1986, and
- 4. Computer Inquiry III, Docket 85-229, released June 1986.

#### Notes for Introduction

- Remarks of Commissioner Mimi Weyforth Dawson of the Federal Communications Commission (FCC), before the United States Telephone Association (USTA), Government Relations Seminar, Washington, D.C., June 13, 1985.
- In the Matter of Ameritech's Petition for Rulemaking to Establish Minimum Service Lives for New Technology Plant Including Digital and Fiber Optic Facilities, FCC Rm 4932:

 $\frac{\text{Comments of the United States Telephone Association,}}{\text{July 1, 1985, at p. 4.}}$ 

1

## PERSPECTIVES OF THE EXCHANGE TELEPHONE COMPANIES

#### A. Investment Unrecovered

Today's telephone industry's depreciation reserve deficiencies as perceived by the telephone companies stem from the prior regulatory environment that envisioned a continuing regulated monopoly. The difficulty has not been one of gross oversight; on the contrary, depreciation rates have been set only after comprehensive studies by the companies and detailed review by the regulators. Rather, the difficulty stems from the results of the process, namely inadequate low depreciation rates.

Capital recovery is important for any investment, but, because of the capital-intensive nature of the industry, capital recovery takes on an even more significant role here. For example, it takes approximately \$2.75 worth of assets to produce \$1\* of revenue annually in the telephone industry compared to approximately \$.75 of assets to produce \$1 of revenue in non-utility sectors of our economy. Hence, the financial viability of a telephone company is substantially more sensitive to all aspects of recovery of its investment, and accordingly more vulnerable to small errors in depreciation management.

As we have seen, past recovery of capital investment has been deficient, according to industry figures, by a cumulative total of \$25 billion and increasing at an annual rate of \$2-\$3 billion. This depreciation reserve deficiency has a negative effect on the financial

<sup>\*</sup> This \$2.75-to-\$1.00 ratio is unique to the local exchange carriers particularly since the breakup of AT&T and the Bell operating companies in January 1984.

integrity of the exchange telephone industry and on its ability to continue to provide high-quality service at reasonable cost to its customers. Faced with rapidly changing technologies and new sources of competition, the telephone companies say the FCC and the industry must act quickly to reduce the carriers' reserve deficiency while there is still the opportunity for the carriers to recover the investors' capital. The consequences of not acting will be harmful to all.

With competition, the regulated carrier's chances for full recovery of its costs, particularly past costs and the under accruals accumulated, may be at risk. For instance, where recovery rates have been lower in the past than those warranted by present economic conditions, the carrier's book investment may have no relationship to its future productive capacity. As a consequence, the regulated company's plant may become obsolete prematurely, whether a result of competition, technological advancement, or miscalculation of the plant's economic service life. Thus the regulated company may have the obligation to stockholders and debtors to recover all of its past costs but not the ability to do so since it cannot raise its prices over competitive levels. Consequently, the regulated company may be forced to write off a portion of its assets immediately harming the current stockholders and making private investment in telephone companies appear more risky and less attractive. The telephone companies facing the downside risk of a write-off with the upside limit on return are in a precarious position.

People who invest in public utilities do so because they want to have a stable return on their investment with lower risk than in other

private enterprises. Therefore, a write-off, or the mention of a write-off, would be counter to the expectations of current investors.

If capital recovery continues to be inadequate, the telephone companies claim that they will not be able to obtain the necessary funds to upgrade their plant and facilities at competitive rates. Internally generated cash will continue to be insufficient to fund their construction programs at a needed level of modernization. At the same time, the ability of the telephone companies to attract capital at reasonable prices will be inhibited because of investors' views of the telephone companies' risk and the potential of not fully recovering their investment. 2

The financial community has a different point of view about the regional telephone companies' ability to attract investors. In a June 1986 talk, Neil Yelsey of Salomon Brothers said that:

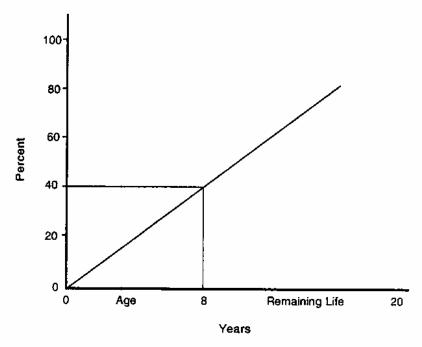
the U.S. local telephone industry has proven remarkably robust and profitable. . . Investors have been pleased with the market performance of the Bell regional companies through their first nine quarters.

#### B. Inadequate Reserves

The telephone companies have argued that investment should be recovered over the time during which the asset is used up. For example, as Figure 1 indicates, if an asset has an expected life of 20 years and costs \$100, then \$5 per year should be recovered from ratepayers and placed into a depreciation reserve account, assuming straight line depreciation.\* If the asset has lived eight years, then \$40 should have been added to the depreciation reserve account over those years. In

<sup>\*</sup> The straight-line depreciation assumes recovery of investment in equal amounts during the service life of the asset.

this way, the company can recover its full investment at the end of its asset's service life.



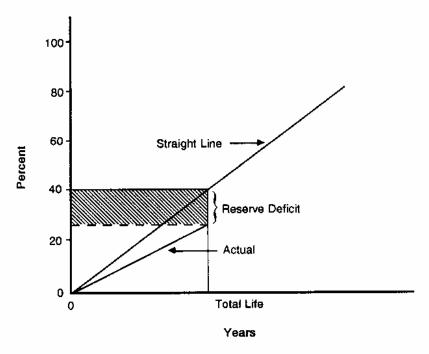
1986 Program on Information Resources Policy, Hervard University.

Figure 1

Objective of Timely Capital Recovery:
% Depreciation Reserve = % Investment Recovered

As shown in Figure 2, a 1983 study prepared for NARUC<sup>4</sup> suggests that the assets should be approximately 40% depreciated to be consistent with straight-line consumption but are only about 25% depreciated. Now the combined depreciation reserve for all the exchange companies is approximately \$25 billion short of meeting the straight-line standard.

A principal reason for the \$25 billion deficiency is that the interaction of technology and competition has shortened useful lives for equipment. Lives used for depreciation have not kept up.



1986 Program on Information Resources Policy, Harvard University.

Figure 2

Bell System Reserve Condition:
% Investment Recovered

# C. Limited Time to Repair the Deficiency

In the opinion of the industry, as described in various legal pleadings of individual telephone companies and of the United States Telephone Association (USTA), the window of opportunity to repair its reserve deficiency is quite limited. The window of opportunity is that period of time during which economic forces will permit pricing to repair the reserve deficiency. The growth of competitors who do not have the burden of past under-depreciation means the telephone companies do not have long to establish balance sheets that are comparable to those competitors. It is clear that the actual period will vary from state to state and between market segments, and will depend upon the perceptions of the forecaster. According to the USTA, 5 the estimates

range from three to seven years. It is likely that the industrial states fall into the shorter end of the range while the other states have some meaningful catch-up ability through the late 1980s, but with pricing flexibility eroding by the '90s. Any reserve deficiency that remains after the window closes cannot be recovered.

The problem is simply this: The telephone companies face a trap. While any price increase can harm a company's competitive position, the industry sees a window, albeit short, in which such an increase can probably be sustained given the pervasiveness of the exchange companies today. However, to the extent that those price increases are avoided or deferred, the needed increase gets larger. As competition increases, the ability of the market to sustain price increases lessens. Therefore, the telephone companies face the situation of an ever-increasing need and an ever-decreasing ability to satisfy that need.

If, indeed, the telephone companies are ensuared in this trap and are unable to recover billions of dollars, the financial implications for those companies could be disastrous. The \$25B shortfall represents about 40% of the equity in those companies. Equity investors are unlikely to swallow a loss of that magnitude and still be interested in investing in the telecommunications industry.

AT&T was concerned about how much time it had to recover its reserve deficiency when it filed its petition for reconsideration to the FCC.

In that petition AT&T argued that:

the Commission should prescribe depreciation rates that will permit AT&T to recover, in no more than four years, the true amount of the depreciation reserve deficiency . . . otherwise, the Commission . . . will have denied AT&T a reasonable opportunity to recover its capital costs.

## D. Concerns about Investors' Perceptions

If capital recovery is not consistent with the competitive realities of the market, the exchange companies will be forced to increase the price they pay for capital. Investors will be unwilling to subsidize any company's inability to adjust to competition. And, as the exchange companies' capital costs increase, their revenue requirement will also increase. This, in turn, will exacerbate the impact of the inflated rate base caused by the substantial reserve deficiency. The following is an example of how one of the companies, New York Telephone (NYT), was viewed by debt investors in the early part of 1984. Moody's, in less than a year, twice lowered its rating of the company's debt. Moody's stated, in conjunction with its downgrading:

This change reflects the likelihood of less supportive regulation than anticipated, of greater delay in the improvement of financial performance and debt protection measures, and our continued expectation that the company will be confronted by unabated pressure from competition.

The downgrading of the NYT rating could easily happen to the other companies in the various regional areas. However, as of the second quarter of 1986, most of the bond rating changes for the divested Bell operating companies (BOCs) have been positive.

The element of risk is a key ingredient to an investor. Some investors are willing to take large risks in order to realize a proportionate amount in dividends. However, others are more cautious; for example, those who invest in utilities could find the present capital recovery situation in the telecommunications industry too risky, which in turn would put still other investors on notice. That is, without the opportunity to reap a reward in direct proportion to the risk, an investor will look elsewhere to invest.

The issue of risk in an industry that has previously been a safe haven for investors heightens their perception of the possibility of not recovering their investment, which in turn affects both stocks and bonds. The higher the risks in a company, the higher the interest rates for bonds. By the same token, increasing risk in a regulated utility makes stock in that company less attractive, tending to lower the price of that stock. The exchange companies assert that adjusting depreciation rates to reflect the conditions of the changing market environment will send signals to investors regarding the ability of the companies to recover capital and provide for a return within competitive constraints. The adoption of more rapid depreciation rates and the elimination of the existing reserve deficiency would send signals to investors that the companies are taking positive steps to reduce the unnecessarily high asset values shown on their balance sheets. Only then will the investors continue to believe that the exchange companies are a sound investment.

Although the reserve deficiency is not desirable, the bond holders' principal is not at risk at the present level of debt. However, attempts to increase substantially the level of debt would tend to create higher interest rates due to the size of the reserve deficiency and the increasing proportion of debt.

Any discounting of the value of the stock by equity owners would reflect perceived economic (market) value and would require increased earnings to correct. Although the companies have considerable potential in the marketplace, this potential is constrained by regulation of

prices and by restrictions imposed by the Federal Communications

Commission, state regulatory commissions, and Modified Final Judgment

(MFJ).\*

<sup>\*</sup> The 1982 Modified Final Judgment terminated the civil antitrust suit filed by the government in 1974 against AT&T, Western Electric, and Bell Labs, and required the divestiture of the Bell system operating companies.

### Notes for Chapter 1

- Anthony N. Doherty, Assistant Vice-President, New York Telephone Co., Capital Recovery in Telecommunications: Myths and Realities, presented at Touche Ross Conference, Washington, D.C., October 24-25, 1985.
- 1.2 U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA), Issues in Domestic Telecommunications: Directions for National Policy. Washington, D.C.: NTIA (SP 85-16), July 1985 [hereinafter cited as Directions for National Policy], at p. 140.
- Neil Yelsey, Salomon Brothers Inc., Financial Outlook for the Bell Regional Companies, presented at the 1986 Telephone Summit Conference, Washington, D.C., June 12, 1986 [hereinafter cited as Neil Yelsey, Salomon Brothers], at p. 1.
- 1.4 In the Matter of Prescription of Depreciation Rates for Domestic Telephone Companies, FCC Reference No. 61730:
  - "Report on AT&T's Proposal to Use Straight-line
    Age-life Depreciation," Comments in Opposition of
    the National Association of Regulatory Utility
    Commissioners (NARUC), Staff Subcommittee on
    Depreciation, October 3, 1983 [hereinafter cited as
    NARUC 1983 Comments].
- In the Matter of Petition of American Telephone and Telegraph Company for Revised Depreciation Rates, FCC Reference No. 61730:
  - Reply Comments of the United States Telephone
    Association (USTA), November 27, 1984, at p. 4.
- In the Matter of the Prescription of Revised Depreciation Rates for the American Telephone and Telegraph Communications State Interexchange Carriers:
  - Petition for Reconsideration of American Telephone and Telegraph Company, November 22, 1985, at pp. 1-2.
- 1.7 Moody's Bond Survey, Feb. 6, 1984, at p. 4735.

## SMALLER RATE BASE, LOWER REVENUE REQUIREMENTS

## A. The Rate-Base Process

An understanding of the dynamics of the rate-base phenomenon as it relates to capital recovery may serve to clarify the perspectives of the various stakeholders.

The application of rate-base regulation by a public utility commission requires the determination of the revenue requirement of the regulated company. The revenue requirement represents the total amount of revenue the regulated firm is permitted to collect from its customers for a period of time, usually until the next rate case. The regulatory commission determines the amount of the regulated company's revenue requirement by selecting a test year, either a recent typical year of operations for which adequate data are available or a future prospective test year for which operations data are estimated forward. The commission requires the regulated company to submit accounting data that provide a total of the company's cost of service for the test year.

Then the revenue requirement (RR) can be defined in terms of the accounting equation:

$$RR = OE + d + T + r (V-D)$$

where the symbols mean:

- OE Operating expenses
  - d Depreciation expense
  - T Taxes
  - V Gross valuation (original cost) of public utility property used in producing public utility services
  - D Accrued depreciation
  - r Rate of return allowed by the regulatory commission
- V-D represents the rate base
- r(V-D) represents the return amount allowed by the commission.

For simplicity, consider this example. Let's assume that the revenue requirement the commission sets for a telephone company in a particular year consists of the following: Table 1 shows that operating expenses and taxes\* together equal \$65, depreciation expense is \$20, and the allowed return determined by the commission is \$15. Then the revenue requirement would be \$100.

Table 1

Rates Requested
by a Regulated Utility

Operating expenses and taxes  Depreciation expenses  Allowed return	\$ 65 20 15
Revenue requirements	\$100

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.

Let's assume that in a particular year the telephone company requests the following revenue requirement: Table 1 shows that the operating expenses and taxes\* together equal \$65, depreciation expense is \$20 and the allowed return requested by the company is \$15. Then the revenue requirement would be \$100.

The depreciation expense was computed from \$200 in capital equipment. This might represent the results of a depreciation study proposed by a company that estimated the equipment would last 10 years and therefore should be depreciated at \$20 per year.

<sup>\*</sup> For simplicity, the examples shown will assume that taxes will remain constant.

If the commission wanted to reduce the revenue requirement of the company so that the ratepayer would pay a smaller price, the commission could reject the company's estimate of a 10-year life and instead estimate that the equipment will live 20 years.

Table 2
Reduced Revenue Requirements
in the Short Run

Operating expenses and taxes	\$65
Depreciation expenses	10
Allowed return	15
Revenue requirements	\$90
<u>.                                    </u>	

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.

Under those conditions, as indicated in Table 2, the revenue requirement for the company would be operating expenses and taxes at \$65, plus depreciation expense of \$10, plus return of \$15, for a total of \$90. Therefore, the tariffs for the ratepayer would be lower by a total of \$10.

But what if, because of human error and the ever-present price and political implications of short-term increases, the commission erred on the too-little depreciation side. Then, in the long run the revenue requirements would increase because the return amount would increase and depreciation needs accumulate. Table 3 depicts what happens to the rate base in later years. Here we compare what might have been, with higher depreciation, to the result using the lower depreciation:

Table 3
Rate Base in Later Years

	With Higher Depreciation	With Lower Depreciation
Capital investment  Depreciation reserve	\$200 -100	\$200 - 50
Rate base	\$100	\$150
10% return	\$ 10	\$ 15

<sup>1986</sup> Program on Information Resources Policy, Harvard University.

At some point in the future, if higher depreciation had been authorized, the depreciation reserve would have increased, say, to \$100, and the allowed return at a 10% rate would be \$10 on a rate base of \$100. In contrast, with lower depreciation, the accumulated depreciation is less, say only \$50. This produces a rate base of \$150 which, with the 10% allowed rate, makes the return amount \$15. The ratepayer is paying more money because the equipment is less depreciated.

But this rate-base effect is not the only impact on revenue requirements in later years. Let's assume in Table 4 that our later point in time is past the 10 years originally estimated as the life by the company but before the 20 years authorized by the commission. With higher depreciation the old equipment would have been fully depreciated, but not so with lower depreciation; the \$10 per year is still being charged.

We should clarify here that the \$200 is not one piece of equipment, but rather many, and each year brings additions of new equipment and retirement of old. We assume here that additions and retirements have

been the same under both the higher and lower depreciation scenarios in order to isolate the effect of depreciation levels. The \$200 investment is not the same equipment that was in place originally with Tables 1 and 2, but rather includes some new additions and reflects some retirements. The \$200 is the same amount in "later years" to show a no-growth situation for simplicity.

Telephone companies do not depreciate individual units of equipment, but rather groups of equipment. Accordingly, depreciation of a particular piece of equipment is not identified. Thus the distinction in Table 4 on the depreciation of old equipment -- zero if past depreciation had been higher and \$10 with depreciation lower -- is quite realistic. Telephone companies depreciate the dollars of investment, not pieces of equipment: If past depreciation has been higher, there is less to depreciate in the future; if past depreciation has been lower there is more to depreciate in the future.

Table 4

Depreciation Expense in Later Years

	With Higher Depreciation	With Lower Depreciation
Operating expenses and taxes	\$ 65	\$ 65
Depreciation on old equipment	0	10
Depreciation on new equipment	20	20
Allowed return	10	15
Revenue requirements	\$ 95	\$110

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.

In this example we assume the depreciation amount for new equipment is \$20 under both the higher and lower depreciation scenarios. With the higher depreciation the allowed return is \$10, which means the revenue requirement to satisfy the needs of the business is only \$95. With lower depreciation, the company still has \$10 of depreciation on the old plus the higher \$15 return amount; therefore the revenue required to satisfy the needs of the business is \$110.

Look at the paradox this has produced. The idea of lower depreciation was to keep prices and revenue requirements low, but in fact it has caused the reverse: Revenue requirements are higher in later years than they would have been if past depreciation had been higher. What might a regulator do? Long depreciation lives (20 years instead of 10 years) reduced the short-term revenue requirements before, so why not use the same tool again? A commission intent on keeping prices low might do that very thing — apply a 20-year life to the new equipment and reduce the depreciation expense to \$10. This is shown in Table 5 where the revenue requirements total \$100. This is lower than the \$110 using higher depreciation on new equipment but still higher than the \$95 if depreciation had been higher all along.\* Of course, continuing to keep prices low in the short run pushes a still greater burden into the future.

This is not to say that all regulators think this way or that they use this method to lower the rates. In its October 1983 comments filed with the FCC, NARUC said:

<sup>\*</sup> It is worth noting that these computations have taken no account of inflation, which is never, of course, predictable. Inflation over the course of the write-off period can alter, or even reverse, the "integenerational subsidy."

It has never been the policy of the FCC nor the state commissions to minimize depreciation expenses by intentionally using service lives suspected of being too high.

NARUC did acknowledge that service lives were high, however, when it stated:

It is, of course, obvious in retrospect that many service lives were nevertheless set too high in the past.

Table 5

Depreciation Expense in Later Years: An Alternative

	With Higher Depreciation	With Lower Depreciation	To Keep Prices Low	
Operating expenses and taxes	\$ 65	\$ 65	\$ 65	
Depreciation on old equipment	О	10	10	
Depreciation on new equipment	20	20	20 10	
Allowed Return	10	15	15	
Revenue requirements	\$ 95	\$110	\$100	

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.

# B. Methods and Lives

Methods issues have centered around two dimensions of capital recovery. One has to do with its timing; specifically, will invested capital be recovered on a straight-line basis by the time the underlying plant is retired, or in less than straight-line, what is sometimes called a decelerated basis? Equal life group (ELG) depreciation has been supported by the telephone companies as satisfying the condition of matching capital recovery with straight-line capital consumption. By contrast, vintage group (VG) depreciation, which was prescribed

exclusively until 1982 for Bell companies and is still in effect for most existing telephone equipment, provides for decelerated recovery slower than straight line consumption.

VG is actually an averaging approach designed to recover investment only after much of the underlying plant is retired. The telephone companies are currently proposing use of the ELG method for all plant, 3 to allow for timely capital recovery.\*

The only dimension to the methods question centers on whether adjustment can be made to permit full recovery — no more and no less — when life estimations change. The two approaches regarding this dimension are called whole life and remaining life. Whole life depreciation, which had been prescribed exclusively until 1981, did not provide for a correction for past errors in life estimation.

Accordingly, final capital recovery would be greater than or less than full recovery. In contrast, remaining life depreciation does, indeed, repair for past errors in life estimations, providing for full recovery of its complete undepreciated amount, even when life estimations change.

Methods alone cannot compensate for inadequate lives. Even with appropriate methods, a reserve imbalance will remain if the depreciation lives do not reflect what will actually occur to equipment.

<sup>\*</sup> Vintage group (VG) is a linear depreciation method applied to a plant vintage (year of acquisition). However, since this method ignores plant retirement dispersion, capital recovery is disproportionately shifted to the last surviving units of a particular account. Equal life grouping (ELG) corrects for this inequity by reflecting retirement dispersion in the estimation of annual depreciation rates. ELG provides for greater capital recovery in the early years by accounting for dispersion in the retirements of plant of the same vintage.

Long depreciation lives for telephone plant were prescribed based on the assumption that no great changes in technology or in the marketplace would occur in the future. The practice of prescribing long lives for plant also fostered lower rates in the short term, which furthered the concept of universal service. The need for a reevaluation of that practice is becoming more apparent with the advance of new technology and competition which, the industry claims, is the primary reason for the current reserve deficit the former Bell companies are experiencing.

## C. Do Ratepayers Benefit?

If capital recovery is delayed, the ratepayers have an immediate short-term benefit. However, they will ultimately pay more because the amount of capital to be repaid is the same no matter how fast or how slowly it is repaid. Until it is repaid, the ratepayers are responsible for providing a return on the unpaid balance. With delayed capital recovery, the balance will always be higher than if timely recovery is achieved, and hence the total return will also be higher.

Lower capital recovery also means less cash flow available to finance the modernization and plant replacement which is essential to provide the economical, reliable, and modern service ratepayers require. Capital recovery generates cash flow, which represents current revenues to cover expenditures made in an earlier period. The reduced flow of internal funds may require the company to raise additional external funds at today's cost of capital, thus further increasing overall costs to ratepayers, or companies may retard investment in new equipment.

## Notes for Chapter 2

- 2.1 NARUC 1983 Comments, at p. 28.
- 2.2 Ibid.
- 2.3
  In the Matter of Amendment of Part 31 (Uniform System of Accounts for Class A and Class B Telephone Companies) so as to Permit

  Depreciable Property to be Placed in Groups Comprised of Units with Expected Equal Life for Depreciation Under the Straight-line Methods, Docket No. 20188 [hereinafter cited as Amendment of Part 31 USOA]:

Report and Order, 83 FCC 267 (1980), at paragraph 48.

Amendment of Part 31 USOA, Report and Order, allowed for ELG to be applied to new plant -- plant put in service after 1981. See Section IIA of Appendix.

#### PERSPECTIVES OF OTHER STAKEHOLDERS

## A. The Federal Communications Commission

For more than 30 years the FCC has prescribed the depreciation rates used by the telephone companies. These rates, the telephone companies say, were kept low to support universal service goals. In a separate statement to the FCC's order on reconsideration, Docket 20188, Commissioner Joseph R. Fogarty wrote in 1981:

While the economy enjoyed prolonged periods of relative economic stability and the industry enjoyed a de facto monopoly market, this commission and state commissions believed it was in the public interest to delay timely capital cost recovery by the telephone industry. Regulators in effect substituted their judgement for that of telephone company management regarding depreciation; in order to maintain low monthly customer charges.

As a result, the telephone companies' depreciation reserves, representing the cumulative past of depreciation expense relating to equipment still in service, are inadequate.

In 1973, AT&T filed a petition for rulemaking requesting permission to use equal life group (ELG) depreciation accounting. After seven years the FCC issued an order in Docket 20188, permitting the use of ELG and of another method called "remaining life". That order, issued in December 1980, was a key step in speeding up capital recovery in the telephone industry.

ELG is a method of grouping individual items of plant to create smaller and more homogeneous groups than were utilized under the

so-called vintage group (VG) method used by telephone companies in the past.\* In its 20188 order, the FCC said:

The primary attraction from an accounting perspective of SLELG [straight-line equal life group] is that it appears to calibrate more closely the flow of revenues with the recovery of capital.

In the same order, the FCC directed that carriers may use a method called remaining life, which has a cardinal advantage over the "whole life" convention for making mid-course corrections in depreciation lives.\*\* Under remaining life, the new rate of depreciation is reset after the correction to make certain that at the end of the useful life of the plant, the total depreciation recovered by the company will equal the net investment.

Both ELG and VG methods are designed to recover the investor's capital over the life of the property in which the capital is invested. In comparing straight-line vintage group to straight-line equal life group, we find some differences. All of the investment placed in service in a specific year, or vintage, for a particular plant study category is part of the vintage group. The depreciation rate is based on the average life of that entire group.

In equal life group, the investment in each vintage group is further subdivided into even smaller subgroups called equal life groups. Each

<sup>\*</sup> ELG is not an accelerated depreciation method; rather, by more accurately computing straight line depreciation, ELG overcomes a lag effect inherent in the vintage method of grouping.

<sup>\*\*</sup> The main problem with whole life is that by ignoring the inadequate depreciation already taken when a life correction is made, whole life virtually assures that a carrier will have underrecovered the net investment at the end of the plant's useful life.

of these groups, based on statistical expectation, includes investment expected to live the same or an equal life; for example, investment to be retired in one year, to be retired in two years, and that to be retired in three years, etc.

Table 6 illustrates both the ELG and VG methods and how they differ in recovering the company's investment.

Table 6

Investment Recovery under Vintage Group and Equal Life Group Depreciation Accounting

	Investment	Vintage Group		Equal Life Group	
Group		Average Life (years)	Annual Accruals (in year 1)	Total Life (years)	Annual Accruals (in year 1)
1	\$100	2	\$ 50	1	\$100
2	100	2	50	2	50
3	100	2	50	3	33
Total	\$300*		\$150		\$183

<sup>\*</sup>Original gross investment

Assume investment of \$300 is placed in service in a given year. The \$300 quantifies the vintage group that in turn is made up of three separate equal life groups, each containing \$100 of investment. Group 1 will live one year, group 2 will live two years, and group 3 will live three years. Using the vintage group method, the average life for this investment is computed as two years. Dividing the investment of each individual group by this average life results in depreciation expense --

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.

often called accruals -- of \$50 per group in the first year, for a total of \$150.

Next we look at the same investment using the equal life group procedure. With the original investment additions of \$300 in this example, we notice that each group, although having the same investment, has a different total life. This results in different annual accruals. The group that lives one year accrues \$100, the group that lives two years accrues at \$50 per year, and the group that lives three years recovers its investment at \$33 per year. The total amount accrued in the first year under equal life group is \$183 and under vintage group is \$150.

In the second year, however, things are different. Group 1 is retired, leaving only groups 2 and 3. Under vintage group, \$50 is accrued for both groups, totalling \$100; but under ELG, \$50 is accrued for group 2 but only \$33 is accrued for group 3 for a total of \$83. Thus in the second year (and in the third year) accruals under ELG are less than under VG, unlike the first year when ELG accruals were higher than VG.

Equal life group depreciation allows the company to recover its investment as it's used up, whereas vintage group defers some recovery of the investment until the entire vintage is used up. Thus vintage group defers the recovery of the investment that lives shorter than the average life to investment that lives longer than the average life.

From a regulator's perspective, allowing the substantial increases in depreciation rates the companies are asking for is not appealing. The dilemma for regulators is how to satisfy the needs of the industry

and consumers in a political environment. But in Docket 20188 the FCC faced up to this, stating,

if the public is to realize the benefits of advances in communications, it is necessary that accounting and depreciation rules not stifle innovation and inhibit the introduction of new technology . . . the seeming attraction of stretching out lives to hold down depreciation expenses may impose longer-term costs on our society that far outweigh the short-term advantages.

The FCC was aware that competition and rapid technology advancement have been and continue to be major causes of the underaccruals the telephone industry is facing. To correct the problem, the Commission further stated, "changes may result in increased revenue requirements and lead to rate increases."

But the telecommunications industry, faced with increasing competition and new technology, believed that the FCC Docket 20188 order did not go far enough. The companies wanted to apply the ELG method to all plant, including embedded plant, not just to new equipment as permitted in Docket 20188. In addition, they sought shortening of depreciation lives beyond what the FCC was prescribing.

The FCC, however, was of the opinion that the issue of reserve deficiencies in the telecommunications industry was corrected by the actions in Docket 20188. In a 1983 memo to the commissioners, Gary M. Epstein, chief of the Common Carrier Bureau of the FCC, reviewed Commissioner Fogarty's proposal for an interim composite depreciation rate of 10%:

It has taken more than 30 years to build up these reserve deficiencies and with the steps already taken by the commission most of the deficiencies will have been recovered by 1990. This will clear up the problem relatively quickly -- certainly much more quickly than the problem was built up.

Furthermore, he seemed to back off from the notion that increases are necessary and tolerable to gain long-term benefits for the ratepayer:

Such a change in the depreciation rate would have an immediate and substantial impact on depreciation charges. . . . The burdens that would be placed upon ratepayers as a result of the imposition of this 10 percent depreciation rate are substantial . . . such an action by the commission would likely raise questions regarding whether the commission is fulfilling its public interest mandate.

In its represcription order released December 20, 1983, the FCC defended its application of ELG to new investment:

The SLELG method should allow for depreciation at a rate more representative of the actual consumption of units of property . . . the proper application . . . of this method would not only enhance the companies' cash flow and present a more accurate and objective financial picture of the companies' operations and capital requirements, but would also benefit their customers by encouraging innovation and the introduction of new technology.

In addition, the FCC reaffirmed the use of "remaining life":

Our goal has been, and will continue to be, the distribution of the full cost of an asset in reasonable manner over its service life. We continue to support our decision to implement the remaining-life method, . . .

But the FCC still believed it need not make further improvements. The following year the FCC reiterated that the methods it ordered in Docket 20188 would remedy the reserve shortfall problem. In its 1984 prescription order, the FCC reaffirmed that position when it said:

We believe, along with most of the state commissions, that the remaining-life method is generally adequate to ensure full and timely recovery of existing reserve deficits in embedded vintages.

And therefore, the FCC reaffirmed its decision not to apply ELG to embedded plant.

The FCC has a major balancing act to perform in the near future. How do they maintain their position about the methods ordered in 1980 (ELG and remaining life), with the persistance of the telcos who want the FCC to expand the application of ELG to embedded plant, and satisfy the wishes of the state commissions who are concerned about the impact of rate increases on the ratepayers?

It appears, however, that in its Order 85-342 the FCC may be laying the groundwork for a solution. It recognized in AT&T that under existing methods AT&T might not recoup its investment. The FCC said:

We agree . . . that the use of current depreciation methods may not be adequate to allow AT&T a reasonable opportunity for 100% capital recovery.

They further indicated that the

rationale [used] for granting AT&T . . . relief does not pacessarily apply to the exchange carriers.

The FCC recognizes that the exchange carriers have a reserve deficiency problem. However, the Commission says that it will deal with those carriers on a case by case basis only after the state commissions have indicated their approval to the FCC.

### B. The State Commissions

State commissions' perspectives about capital recovery are as varied as there are commissions. What is appropriate for one state commission may or may not be appropriate for another; their interest reflects the perceived needs of their ratepayers, making them a little more sensitive to the political short-term pressures than the FCC.

Depreciation rates, the rates the regulators recognize for the telephone companies, are an integral part of the rate (revenue requirement) process. In addition, because of the commissions' sensitivity to the local (state) political pressures, most state commissions seem fearful of granting large rate increases in the short term. This sensitivity is a primary reason why many state commissions believe recent increases prescribed by the FCC are too large.

Such commissions were annoyed at the FCC's preemption over the states in setting depreciation rates.\* In September 1984, the Maine Commission, in its reply to the FCC's notice of proposed depreciation rate changes, said:

we note that it has been and continues to be this commission's position that the Federal Communications Commission has no authority to establish depreciation rates for intrastate ratemaking purposes.

Maine's position and the similar positions of many state commissions reached such proportions that the preemption issue was submitted to the Supreme Court for a ruling.  $^{12}$ 

The one organization that speaks for the state commissions on various issues is the National Association of Regulatory Utility

Commissioners (NARUC). In September 1983, NARUC filed comments to the FCC's proposal of prescription of depreciation rates. In its attached report on AT&T's proposal to use "Straight-line Age-life depreciation," NARUC stated that "the claim made by AT&T that its depreciation reserve and those of the BOCs are deficient is not disputed." It did believe, however, "that AT&Ts allegations about the extent of the problem are overstated." 13

<sup>\*</sup> The issue was whether the FCC had the authority to preempt depreciation rates and methods for claims of property prescribed by a state regulatory body. The Appendix, Section IIC, has a history of the preemption issue and the Supreme Court ruling issued May 27, 1986.

In August 1985, NARUC prepared a report on Ameritech Operating

Companies' proposal to establish a range of service lives for new

technology plant. In the report, NARUC found that Ameritech's arguments
were misleading and seriously flawed and, therefore, should be

rejected. 14

In summary, state commissions tend to resist depreciation increases requested by the companies, as does the FCC. Sometimes they resist less vigorously than the FCC does; more often they resist more.

## C. Competitors

The method of establishing prices constitutes one of the most fundamental differences between the non-regulated companies and the regulated sector. In the non-regulated sector, prices are largely determined by the action of competitive forces, market supply and demand. In the regulated sector, prices are determined by a regulatory commission based on allowed costs of doing business. Depreciation is one of those costs, rendering depreciation rates an integral part of the overall prices the telephone companies charge their customers. As we saw in Section 2A, "The Rate-Base Process," low depreciation rates lead to lower prices in the short run and higher prices in the long run; high depreciation rates have the opposite effect.

From the competitor's point of view, who reaps the benefits of depreciation rates that are too low? Either the regulated company or the competitor benefits, depending upon the timing and circumstances of such rates. If the rates were too low in the past and were applied to old technology that now is superseded by more efficient innovations, then the competitors get the pricing advantage because they are not saddled with old, higher expenses. If the low depreciation rates now

are applied to current technology so that regulated prices are low and cannot be matched by the competitor, then the pricing advantage goes to the carrier. This advantage, however, is short term because once the current technology is superseded, then the carrier is again burdened with underdepreciated and outmoded assets.

With faster capital recovery, the exchange companies' costs will increase, which in turn will increase the prices for their services. Because of exchange companies' reserve shortfall, coupled with the dynamics of their pricing procedures, any increase in rates necessary to correct the shortfall will in the short run increase the rates to the consumers. However, in the long run, the consumers will benefit from lower rates because the companies would have recovered the costs of their investment.

A competitor whose investors and management look at the long-term perspective will prefer the exchange companies to have low depreciation rates. Lower rates translate into lower prices which tend to inhibit the companies' ability to modernize its equipment. On the other hand, a competitor worried about short-term survival will prefer the exchange companies to have higher depreciation rates. This would allow the competitor to get a foothold in the market.

Continued deferral of capital recovery in today's increasingly competitive environment will require higher prices in the future to meet the higher repayment of costs. Competitors, unburdened with unrecovered capital, will have greater pricing flexibility to undercut telephone company rates. Large business customers who can choose available alternative telephone service are likely to do so, leaving those

customers who lack such alternatives, principally the basic exchange ratepayers, to pay increasingly higher rates.

#### D. Consumers

Consumers want reliable telecommunications service at a reasonable price. This seems simple and axiomatic, but it becomes complicated when one realizes that the kinds of service desired vary widely between types of consumers, as does the perception of what is a reasonable price.

Large business customers want sophisticated services far beyond "plain old telephone service" (POTS), for both voice and data communications.

Many are finding alternatives to the telephone companies for such services.

Residential customers, on the other hand, may be satisfied with POTS or something close to it, although they are gaining an appetite for some special features such as signals when another call is coming in or the ability to add a third party to a call. Small businesses may fall somewhere between large business and residential customers.

How does the capital recovery issue affect their interests? To the extent that improved capital recovery will maintain the vitality of the telephone companies and their ability to provide reliable service, this improvement should be in concert with consumer interests — assuming they continue to rely on those companies. Those customers who go elsewhere for service may not care.

Past customers who have not paid the full cost of telephone service because of deferred capital recovery, but who are no longer customers, arguably have benefitted by deferral. Those who will remain customers for only a short while longer may not benefit by improvements now. It is those customers who will be around in future years and will be forced

to pay for past expenditures or suffer degradations in service who will benefit even if some price increases are needed in the near term.

The telephone companies could survive with inadequate capital recovery if some of their markets remain a monopoly. This would validate the traditional notion that captive customers could be forced to pay for the shortfall in the future. But who will those customers be? The service most likely to remain monopolistic for the longest time is basic exchange service, especially for residences and small businesses. Therefore, as competition increases for business and long-distance services, residential and small business customers will be saddled with the entire shortfall, and those prices will rise. These increases can be prevented, the telephone companies say, by prompt action while it is still possible to spread at least some of the cost to other than those residential and small business customers who are the object of much regulatory concern. Furthermore, the need to raise new capital to finance growth and modernization is minimized, translating into a company that is financially stronger and thus better able to provide reliable and economical service.

## E. Suppliers

As capital-intensive businesses, the telephone companies purchase new capital equipment each year. In 1984, United States Telephone Association <sup>15</sup> members' construction expenditures totaled some \$17 billion to replace old equipment, provide for growth, and modernize the network. More than 75% of this, or \$13 billion, was financed through depreciation. This preparation means that suppliers of telecommunications equipment, those firms that sell the equipment to the telephone companies, have an important stake in the depreciation levels in those

companies. To the extent that depreciation rates are higher, the telephone companies are able to afford more equipment; and to the extent that depreciation rates are lower, they can afford less.

The ability to afford capital equipment has an impact on the other stakeholders -- the industry, competitors, regulators, and customers -- as we have just seen. But this ability has a special meaning to suppliers of telecommunications equipment; it determines how much their customers have to spend on what they are selling.

Depreciation is a source of funds for capital expenditures in a given year because it represents expenditures made in a prior year — not the current year. Actual expenditures on equipment — for example, a telephone pole — are made the year the pole is purchased. The expense, however, appears on the income statement not all at once when the expenditures are made but rather over subsequent years in the form of depreciation expense. Revenues that cover the depreciation expense in those later years are not needed to pay for the pole — it was paid for when it was purchased — thus they can be used toward buying another pole (or electronic switching equipment or fiber optic cable, or a repair truck, or any other piece of capital equipment).

Sources of funds for construction spending are often classified into two types — internal and external. Internal funds, or funds from operations, include depreciation, retained earnings (net income retained in the business after dividends are paid), and tax benefits derived from deferred taxes and from the investment tax credit. External funds, or new money requirements, then are obtained from outside the company if needed, by issuing stock or bonds. In recent years depreciation has represented approximately two-thirds of total funds both internal and

external, or of the entire construction expenditure of the telephone companies -- over 70% in 1984 as we have seen.

Often there is a management incentive in the telephone companies to minimize external funding because it adds a debt burden. This incentive has increased somewhat in the former Bell system companies since divestiture from AT&T: The changed, more uncertain world makes external funding more difficult for the divested companies that are smaller and may be perceived by investors as more risky than the old AT&T. Recent stock market performances suggest that the local exchange carriers are in good order. Neil Yelsey of Salomon Brothers does not view the companies as a risky investment. In a recent speech before the 1986 Telephone Summit conference, he concluded by saying that: "the Bell regional companies are financially attractive and an excellent value in today's market." 16 Company management may still be reluctant to go for external funding because of risk. Thus if external funding is reduced or even eliminated for a time, more -- perhaps all -- of the construction spending for a company must come from internal sources. This means that depreciation looms even larger as a proportion of construction spending and the amount that a telephone company is willing to spend is all the more influenced by its level of depreciation. Hence, the bearing that depreciation has on the fortunes of suppliers is intensifying.

### Notes for Chapter 3

- 3.1 Amendment of Part 31 USOA, supra note 2.3:
  - Order on Reconsideration, 87 FCC 2d 916 (1981), at p. 4.
- 3.2 Amendment of Part 31 USOA, Report and Order, supra note 2.3.
- 3.3 Ibid., at paragraph 49.
- 3.4 Ibid., at paragraph 92.
- Gary M. Epstein, Chief, Common Carrier Bureau of Federal Communications Commission (FCC), United States Government Memorandum to Commissioners of FCC, Office of General Counsel and Office of Plans and Policy, Commissioner Fogarty's Capital Recovery Reform Proposal, May 16, 1983 [hereinafter cited as Epstein Memorandum].
- 3.6 <u>Ibid</u>., at paragraphs 2, 3.
- 3.7 In the Matter of the Prescription of Revised Percentages of

  Depreciation Pursuant to Section 220(b) of the Communications Act
  of 1934, as Amended, for: American Telephone and Telegraph Company

   Long Lines Department, Michigan Bell Telephone Company, New York
  Telephone Company, Northwestern Bell Telephone Company, Ohio Bell
  Telephone Company, Southern Bell Telephone Company, Southwestern
  Bell Telephone Company, Wisconsin Telephone Company, FCC Docket No.
  83-587:

Order, 96 FCC 2d 257 (1983).

- 3.8 Ibid., at paragraph 18.
- In the Matter of the Prescription of Revised Percentages of Depreciation Pursuant to the Communications Act of 1934, as Amended, for: The Chesapeake and Potomac Telephone Company, The Chesapeake and Potomac Telephone Company of Maryland, The Chesapeake and Potomac Telephone Company of Virginia, The Chesapeake and Potomac Telephone Company of West Virginia, Continental Telephone Company of Virginia, General Telephone Company of Indiana, General Telephone Company of Indiana, General Telephone Company of Michigan, General Telephone Company of Ohio, Illinois Bell Telephone Company, Indiana Bell Telephone Company, Inc., New England Telephone and Telegraph Company, South Central Bell Telephone Company, FCC Docket No. 84-620:

Order, 99 FCC 2d 1094 (1984), at paragraph 21.

- 3.10 In the Matter of the Prescription of Revised Depreciation Rates for AT&T Communications Interstate Division, FCC 85-342; Memorandum Opinion and Order (adopted July 1, 1985).
- 3.11 Depreciation Rate Prescriptions Proposed for Domestic Telephone Companies, FCC Public Notice No. 6462:

Notice of Opportunity for Comment, September 10, 1984.

- Virginia State Corporation Commission v. Federal Communications
  Commission, Civil No. 83-1136, 737 F.2d 388 (4th Cir. 1984)
  [hereinafter cited as Virginia State Corporation Commission v. FCC]. On appeal Louisiana Public Service Commission v. Federal
  Communications Commission, Civil No. 84-871; California and Public
  Utilities Commission of California v. Federal Communications
  Commission, Civil No. 84-889; Public Utilities Commission of Ohio
  v. Federal Communications Commission, Civil No. 84-1054; Florida
  Public Service Commission v. Federal Communications Commission,
  Civil No. 84-1069, petitions to file briefs as amicus curiae granted, 106 S.Ct. 46 (1985).
- 3.13<sub>NARUC</sub> 1983 Comments, supra note 1.3.
- 3.14 In the Matter of Ameritech's Petition for Rulemaking to Establish Minimum Service Lives for New Technology Plant Including Digital and Fiber Optic Facilities, FCC Rm 4932:
  - "Report on Ameritech Operating Companies' Proposal to Establish a Range of Service Lives for New Technology Plant," Comments of the National Association of Regulatory Utility Commissioners (NARUC), Staff Subcommittee on Depreciation, August 22, 1985.
- 3.15 Informal communication with Courtney Snyder, Executive Director Statistics. United States Telephone Association, 1801 K Street, Suite 1201. N.W. Washington. DC 20006.
- 3.16 Neil Yelsey, Salomon Brothers, at p. 7.

#### ALTERNATIVE COURSES OF ACTION

#### A. Status Quo

One option that might be considered is to continue on the present course with depreciation rates above what they were several years ago but still too low in the eyes of many. As we have seen, important improvements were made in the early 1980s, and some regulators believe those changes were enough.

This course would be a stable alternative if predictions of continuing industry change toward increased competition and more rapid technological obsolescence proved false. If these trends stop in their tracks, then the local exchange companies could retain many of their current characteristics: high capital intensity; low capital recovery relative to other industries; largely captive customers who have few, if any, alternatives to the telephone company for communications services; and a mix of old and new technology, updated only over many years commensurate with slow capital recovery.

If the predictions of change are correct, however, then it may be too late to pursue this option. The pressures of technology and competition will force someone — either customers or owners — to pay more rapidly or maybe suddenly for past capital expenditures.

# B. Faster Capital Recovery under Regulation

If capital recovery has been and remains too slow, an obvious alternative is to speed it up. This could simply mean that the regulatory commissions prescribe higher depreciation rates and recognize them in tariffs. The companies have sought this alternative through

depreciation studies that reflect the decisions of management and have shown a need for higher depreciation rates than the FCC has prescribed. Instead of resisting the increases shown in these studies, the commissions could just accept the recommended rates, or something closer to them than has been the case. These could be used by both the federal and state commissions in setting revenue requirements and rates.

The industry has favored this alternative but has pursued it so far without what it considers adequate success. Some specific remedies sought by the industry for higher depreciation rates are:

- Shorter equipment lives used for depreciation purposes;
- Improved accounting methods to better match capital recovery with capital consumption;
- Simplification of the depreciation process (current process is costly, complex, and time-consuming, and it requires an inordinate amount of record keeping);
- Streamlined regulatory process to permit more frequent and responsive changes in depreciation rates; and
- . Amortization of the depreciation reserve deficiency.

The treatment of the reserve deficiency, whether it is \$15 billion that the FCC estimates or \$25 billion that the industry estimates, can for analytical purposes be separated from the ongoing need. It may be possible, for example, to provide one solution for the ongoing need — to provide for adequate capital recovery going forward so that the reserve deficiency gets no larger — and another approach to care for the deficiency repair. These different approaches might both be means of faster capital recovery under regulation, or one might be another of our major alternatives — write-off coupled with deregulation.

### C. Write-Off, as for AT&T

An alternative for resolving the reserve deficiency is write-off charged to stockholders. In 1983, just before divestiture, AT&T identified \$8.9 billion of past under-depreciation and wrote it off against 1983 earnings. Approximately \$3.2 billion of this was for network equipment and some \$5.7 billion was for customer premises equipment (CPE). After tax, this write-off produced a \$4.1 billion net effect to the bottom line.

In addition, AT&T made some write-offs for reasons other than capital recovery,\* and together with the depreciation write-off, they totaled \$5.5 billion after taxes, slicing the net income for AT&T in 1983 to \$250 million. Without the write-off, net income would have approached \$6 billion.

Could the exchange telephone companies do the same thing? There were at least two differences between AT&T's write-off and the circumstances faced by the local exchange companies.

Although the deficiency that was written off related just to the assets being retained by AT&T after divestiture, the earnings against which the write-off was applied were for the entire pre-divestiture Bell system with all its operating companies. The write-off still virtually wiped out the 1983 earnings, but without this cushion of earnings from all the operating companies, the result would have been an enormous loss for 1983.

The exchange telephone companies have no such nationwide cushion against which to apply a write-off. If they were to write off their

<sup>\*</sup> To establish liability accruals and to allow for tax timing differences.

deficiency against their own earnings in one year, they would incur a loss that, in some cases, could be as large as half the equity in the company. Such a loss could be uncomfortable for investor relations in a regulated utility. The exchange telephone companies are limited in their upside potential to earn by rate-of-return regulation, but if they are to have no protection on the downside against such write-offs, their securities would indeed be unattractive to investors.

This situation leads to the second difference between AT&T's circumstances in 1983 and those of the local exchange telephone companies. Remember, \$5.7 billion of the depreciation write-off was applied to CPE. CPE was deregulated; therefore, AT&T indeed does have an opportunity to make whatever profit it can in that business. The upside limitation on earnings imposed by rate-of-return regulation was removed for AT&T because rate-of-return regulation was removed for CPE.

An important point that needs to be made is that AT&T wrote off the deficiencies for financial reporting purposes. The company is still pursuing all avenues to recover the network investment from the ratepayer.

This poses an interesting prospect: Might a similar lifting of rate-of-return regulation be a solution for the exchange companies? We will examine this possibility in the next section.

Some regulators favor a write-off with continued regulation because it is appealing to them in the short run -- consumers would be asked to pay nothing, the stockholders everything. Others suggest a sharing of the burden between ratepayers and owners.

The National Telecommunications and Information Agency (NTIA) in a July 1985 report suggested such a sharing and succinctly described the viewpoints of those who argue that either the ratepayer or the stockholders should pay:

Ratepayers could claim that those who invested in telephone company stock were aware of the regulatory constraints on the firms and the resulting risk to long term earnings. The stock and bond markets should have discounted the value of telephone securities accordingly. If not, the problem is one for investors, not the ratepayers.

While making stockholders pay might appeal to some, such a policy is short-sighted. The stock and bond prices of the local exchange companies could be increasingly and adversely affected. Their cost of capital would increase. Needed investment might be neglected. In any case, users would wind up paying higher rates, probably for poorer and fewer services.

#### NTIA concluded,

The sensible path is one of fairness to both ratepayers and stockholders. The costs of past policy, which arguably benefitted past ratepayers and stockholders alike, should be borne in some measure of equitable apportionment.

The industry, however, is firmly opposed to any write-off under continuing regulation, even by sharing, claiming that it would represent unfair confiscation of investment made in good faith that regulators would permit its eventual recovery, not force its loss. Responding to the NTIA report, USTA stated, "The long-standing and continuing USTA policy is that the only source for making up this reserve deficiency is from ratepayers."

#### D. Deregulation

Looking at the AT&T experience, remember that customer premises equipment was removed from rate-of-return regulation, allowing the

opportunity to make whatever profit is possible in that business. The company has the opportunity to earn whatever it can in future years. It has at least the market opportunity without regulatory rate-of-return limitations in future years to make up the write-off from 1983.

# G. L. Cashion of the NYNEX Service Company suggests

that such a tradeoff might be acceptable to some telephone companies. To remove a utility from rate-of-return and pricing regulation may seem revolutionary, but one option is to let them price and earn what their own skill and the marketplace will permit. If they can make up the past underdepreciation through revenues, fine for them. If not, they would eventually write it off against earnings.

Regulators' resistance to this, of course, would stem from their fear that companies would use their position in the market to gouge the remaining captive customers, especially with local service to residential ratepayers who for now have few if any alternatives. Perhaps selective deregulation of competitive services would allay these fears, but if this were too selective, the companies then would fear that the market would not permit them increased recovery. Business and long-distance services, which are already subject to competition, are often priced above cost, leaving little or no room for price increases to speed up capital recovery.

Competitors who are unregulated and are capable of bypassing the local exchange companies' (LECs') network, are chipping away at the LECs' heretofore exclusive position in the market. Some believe that the crossover point that places the competitors at parity with the LECs is during the early 1990s.

V. Louise McCarren, chairman of the Vermont Public Service Board, suggested a hybrid form of deregulation in a talk in June 1985. She

suggested that fixed, gradual increases in residential rates be planned under regulation but that other services be deregulated. Specifically, she suggested:

- Residential and small business basic exchange rates would have a maximum percentage per year increase for a period of years to be established.
- Companies would be prohibited from dropping any existing market,
   and extensions of service would be required at fully compensatory
   rates.
- The companies would commit themselves to a modernization program that would ensure the deployment of new technology throughout the state.

She said, "In exchange, the companies would be deregulated as to all other services both current and future. . . There would be no franchise protection at any level."

The acceptability of this plan to the companies and its ability to permit faster capital recovery hinge on the specific amounts of the increases permitted to residences and small businesses and on the practical market power enjoyed by the companies in the deregulated services. If the regulated price increases are too modest to cover the costs of those services — including improved capital recovery — in effect leaving them to remain subsidized by other services, and if the other services are too competitive to maintain the needed subsidies, then the companies and their stockholders will be stuck with an uncompensated write—off. On the other hand, if the regulated price increases on monopoly services are more generous, and if the companies

retain sufficient market power in the deregulated services, then the companies would have the opportunity to wind up whole.

The rhetoric of federal policy, especially at the FCC, is toward less regulation and more competition. However, the approach is to pursue this gradually, not all at once, creating a transition period characterized by what Alfred Kahn has called the "uneasy marriage of regulation and competition." Dr. Kahn, now of Cornell University, has special credentials to discuss deregulation because he presided over the deregulation of the airline industry as chairman of the Civil Aeronautics Board, which Congress abolished. In a speech at the Iowa State University Regulatory Conference in May 1984, he described a host of inefficiencies and conflicts when he tried to combine regulation and competition by deregulating slowly. "And what I found," said Dr. Kahn, "was that moving slowly created more problems than it solved."

The sooner we find ways of terminating the uneasy marriage between regulation and competition, wherever remotely feasible, the better 6 The grounds? Fundamental incompatibility.

The point is that the combination of price regulation and marketplace competition is awkward at best and perhaps a contradiction from a
policy standpoint. However, from a practical standpoint that combination exists in mid-1986 and is likely to continue at least for awhile.

Deregulation of the telephone companies has a certain appeal, however,
because it may create a solution satisfactory to many of the stakeholders. It may be reasonable, then, to move policy in the direction of
deregulation as fast as possible with needed safeguards. A policy goal
might be to end the combination of price regulation for some firms and
price freedom for others as soon as possible, realizing that the change
cannot be made instantaneously.

Given the present direction of federal policy, some elements of deregulation seem destined to be at least part of the future of telecommunications. The pace and wisdom with which deregulation and regulation are pursued will probably determine the identity and health of the firms that remain.

# Notes for Chapter 4

- 4.1 American Telephone and Telegraph Co., 1983 Annual Report, Financial Section, at pp. 11-12.
- 4.2 Directions for National Policy, supra note 1.2.
- 4.3 United States Telephone Association (USTA) Member Letter Special Edition, letter No. 1670, July 26, 1985.
- 4.4 Interview with G. L. Cashion, Division Manager, NYNEX Service Company, 500 Westchester Ave., White Plains, N.Y. 10604, May 15, 1986.
- V. Louise McCarren, "Thoughts on a New Social Contract," a talk given at the "Funding the Future of Telecommunications" program at Rensselaer Polytechnic Institute, Saratoga Springs, NY, June 3-5, 1985.
- 4.6 Alfred E. Kahn, <u>Uneasy Marriage of Deregulation and Competition</u>, keynote speech at the Iowa State Regulatory Conference, Ames, IA, May 16, 1984.

#### CONCLUDING THOUGHTS

The telecommunications industry is a major component of the nation's economy, a component that will grow in importance as the country moves further into the age of computers and information. It is an industry in which this nation is and can continue to be a world leader.

New technology, competitive entry into the industry, the breakup of AT&T and the Bell operating companies, and other trends are dramatically altering market and operational considerations in the industry at an increasing rate.

The former Bell system companies, and the telephone industry in general, are faced with rapid changes, fostered by a long line of commission decisions, resulting in increasing competition in all phases of telecommunications and in an accelerating pace of technological obsolescence of telephone plant. One impact of these changes has been a dramatic and across-the-board shortening of life estimates for telephone plant, a reality that is becoming increasingly important to depreciation prescriptions. A major objective of the industry is to have the telecommunications environment fully reflected in the rate of capital recovery which is appropriate in the prescription process.

The FCC believes that in time (by 1990), the reserve shortfall the telecommunications industry is facing will be resolved. Most of the industry disagrees with that time schedule. They believe and continue to say that new technology and competition will preempt the FCC's time schedule if they are not allowed to improve existing depreciation methods and resulting rates. It appears that between the two predictions there is room for a solution that would satisfy the stakeholders.

The notion that regulation functions as a substitute for competition, as was the case in a monopolistic environment, is not so clearcut in today's environment. The exchange telephone companies, the Federal Communications Commission, the state commissions, and other stakeholders have to decide what avenue the telecommunications industry should take in the future. Whatever option the players choose, it should be in the context of capital recovery under regulation, deregulation, or the combination of the two. Because of the impact the tax reform of 1986 would have on capital recovery, a few words on an alternative course of action are warranted.

The Tax Reform Act of 1986 becomes effective in 1987, with among other things, an annualized effective corporate tax rate decrease from 46% to 40%, further reduced to 34% in 1988. The tax adjustments are comprehensive and their effect varies widely from company to company and between jurisdictions, but most typically they produce a decrease in both internally generated funds and revenue requirements.

For a utility, such a change in the tax rates would normally generate a return to the ratepayer absent any change in revenue. The various state commissions would instruct the telephone companies either to refund the money, reduce prices, or institute a combination of the two. It is clear that the consumer (ratepayer) would immediately benefit from such a condition.

Another one-time situation may be on the horizon that could satisfy most stakeholders. The FCC staff could invite filings to increase depreciation expense up to the point where the decreased revenue requirements from the tax reform are offset. This would provide an

immediate boost to the industry's reserve deficiency repair without any need for price increases, even in the short run. Indeed, J.L. Johnson, chairman of USTA, recognized such an opportunity and wrote Mark S. Fowler, chairman of the FCC, about it. In his letter, he encourages Mr. Fowler

to be receptive to depreciation filings which recognize reduced revenue requirements, and that corresponding by request depreciation methods such as short-term\_amortization of reserve deficiencies.

In Mr. Fowler's response to Mr. Johnson he acknowledges such an opportunity and writes:

The Common Carrier Bureau has begun to evaluate changes in federal income tax statutes. . . to better understand future revenue requirement trends. Early analysis indicates tax law changes will likely reduce revenue requirements, as will lower interest rates over time. Thus, opportunities may exist to resolve the depreciation reserve imbalance without substantially increasing the overall revenue requirement, a situation that I believe is worth exploring.

The numerous and rapid changes in technology, increasing competition, and changing customer needs are shortening the economic life of telephone equipment. The industry believes that unless changes are made in the rate of capital recovery, marketplace factors are likely to make full recovery unlikely. The financial community may view this situation as too risky for the investor, a response that could inhibit the telephone companies' changes to attract capital.

Regulators and the telephone companies alike have often viewed capital recovery as a deferrable concern. This viewpoint had some justification in a regulated monopoly; however, in a competitive environment with alternative customer options, that viewpoint may need reevaluation.

## As John F. Dealy said in The Brookings Review:

The world of telecommunications, already an \$80 billion business in the United States, can be considered in one sense to be still in its infancy, as an industry newly opened to competition by the Federal Communications Commission . . . and the American Telephone and Telegraph Company . . . antitrust settlement. The resulting competitive industry structure, coupled with recent technological breakthroughs, other regulatory reforms, and changing demands of users, signals the start of a remarkable era for an otherwise mature industry.

### Notes for Chapter 5

- The Tax Revolution: A New Era Begins, pamphlet by Deloitte, Haskins and Sells, 1114 Ave. of Americas, NY, NY 10036, p. 34.
- 5.2 USTA letter written to Mark S. Fowler, chairman of the FCC, from J.L. Johnson, chairman of USTA, July 1, 1986.
- 5.3 FCC letter written to J.L. Johnson, USTA chairman, from Mark S. Fowler, chairman of the FCC, September 12, 1986.
- 5.4 "Everybody's Favorite Growth Business; The Battle for a Piece of the Action," <u>Business Week</u>, October 11, 1982, at pp. 60-66; and John F. Dealy, "Telecommunications: Policy Issues and Options for the 1980s," <u>The Brookings Review</u>, Vol. 1, No. 2, Winter 1982, at pp. 30-33.

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#### APPENDIX

#### I. BACKGROUND: UP TO 1980

# A. Legislative and Regulatory Structure

# 1. Regulatory Policy

Regulatory authorities and other public officials are empowered to guide industry development or otherwise intervene in marketplace, technological, and other processes in pursuit of social goals and economic goals. Those entrusted with such responsibilities may view their mission either narrowly or broadly. In some instances, they simply act as caretakers, and do little more than carry out the express statutory requirements of their agency's legislation, or the policies and procedures developed by their predecessors. Alternatively, they have the flexibility to recognize or anticipate changes, and to act as trendsetters. On occasion, they even act as catalysts to technological, institutional, or other developments. In either situation, however, these officials must look for general guidance or justification for their decisions.

To select from among the array of policy options, policymakers must determine specific objectives, goals, and priorities. On October 1, 1976, the FCC released a memorandum opinion and order in which it prescribed a method for assessing the lawfulness of the rate levels and rate-level relationships of AT&T's interstate transmission of service. In that order the FCC set forth five basic public policy objectives: 1) full and fair competition, 2) allocative efficiency, 3) accountability, 4) equity among all consumers of telecommunications, and 5) clarification of market rules. The order was the culmination of 15 years of FCC concern regarding, first, AT&T's pricing response to potential

competition and, eventually, the actual entry of competitors into AT&T's interstate private line market. Since the early 1980s, the Commission has focused these concerns on a policy of introducing competition and of withdrawing regulatory oversight (removing unnecessary regulatory burdens) whenever possible.

## 2. Interstate Commerce Commission

Early communications regulation at the federal level can be traced to the Post Roads Act of 1866, which gave telegraph companies certain construction rights related to public lands and waters. This statute also authorized regulation of rates for government telegrams. In 1887, Congress granted authority over telegraph company interconnections to the Interstate Commerce Commission (ICC).

In 1910, the Mann-Elkins Act granted the ICC authority over interstate and foreign telephone services, telegraphy, and cable operations. Under Mann-Elkins and subsequent legislation such as the Transportation Act of 1920 and the Willis-Graham Act of 1921, the ICC was authorized to monitor rates, establish accounting system studies, evaluate rate base, provide for periodic reporting of subject carriers, and was given the power to exempt consolidations and mergers of telephone companies from the restraints of antitrust laws.

### 3. Communication Act of 1934

In 1933, an interdepartmental committee of the ICC under the Secretary of Commerce studied the status of communications regulation. The committee concluded that a single agency should be charged with responsibility for governmental oversight of all communications services. The following year Congress passed the Communication Act of

1934, which consolidated communications jurisdiction into a single agency and provided central guidance for future communications policy.

Title I of the Act provides the general statutory goals and objectives for the newly created Federal Communications Commission (FCC). In addition to the FCC order to execute and enforce the provisions of the Act, the objectives were

to make available so far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges. . . .

Title II contains the basic provisions for the economic regulation of carriers. Its requirements are generally written as mandatory or imperative, employing obligations that the carriers "shall:"

- . Furnish service upon reasonable request therefor;
- Provide "just and reasonable" charges, practices, classifications and regulations for service;
- Not unjustly or unduly discriminate or offer preferences; and, . . . Adhere only to Commission accounting and depreciation prescriptions.

Thus, Title II governs market and service entry and exit, rate and service terms and conditions, accounting and depreciation practices; in addition it provides for tariff rejection, suspension, and hearings, as well as investigations and prescription by the Commission of lawful rates and service conditions where it finds a carrier's rates or service conditions unlawful.

From the perspective of capital recovery, the different treatments of Title II regulated carriers and of those exempted from it are unlikely to be easily reconciled. Competitive carriers not subject to traditional public utility regulation set their own prices and their own

period for capital recovery based on what the market will bear. On the other hand, carriers subject to regulation must still provide justification of their revenue requirements and capital recovery, and must undergo hearings or tariff suspension or rejection.

# 4. State Regulation

A number of states and the federal government established common carrier regulation prior to the turn of the 20th century. Before the 19th century, long-lived depreciable assets were of little business significance. The national economy was largely based on labor and agriculture.

With the advent of industrialization and railroad systems, a number of state legislative bodies asserted an interest in depreciation accounting. The development of state regulatory bodies followed.

Today, states and other jurisdictions, such as the District of Columbia, Puerto Rico, and the Virgin Islands, have enacted laws for the regulation of common carrier utilities. These statutes, like the Communication Act, generally require that the rates charged by carriers be just and reasonable. Determining such rates, as a matter of course, entails some means of rate-base valuation, prescription of fair return on rate-base value, and prescriptions of depreciation rates and accounting by states for intrastate purposes — varying from state to state — and by the FCC for carriers subject to its jurisdiction.

# 5. Uniform System of Accounts (USOA)

The history of the USOA (and of depreciation accounting) can be traced to the first accounting circular issued by the American Bell Company on April 25, 1884. These accounting circulars and other inputs from state regulatory commissions and various regulated companies were

ultimately the basis for the ICC's issuing of the first USOA on January 1, 1913.

Detailed depreciation provisions were developed by the ICC in the context of Docket 14700. <sup>5</sup> In this docket, the ICC undertook proceedings to determine the feasibility of depreciation accounting regulation. It noted that most "property units used by a telephone company are retired from time to time, the loss involved in such retirement being an expensive operation." <sup>6</sup>

FCC regulation relating to accounting and depreciation began in Docket 2552, "Depreciation Charges of Telephone Companies." In 1936, Bell and other telephone companies contested several provisions of the FCC's prescribed accounting system, including separate classifications of plant and original cost requirements. The Supreme Court supported the use of original cost. It found special need for such means of evaluation in transfers between subsidiaries or affiliates, and in cases of organization. The Court also found that the prescribed plant accounts prevented the use of charges to pad carrier cost in excess of what was just and reasonable.

The USOA constitutes a superstructure into which information flows from all parts of the telephone company's business. Certain subdivisions of these prescribed broad account classes are also delineated and required for telephone company use. Telephone companies can create even more finely detailed subdivisions of the structure, which then feeds into prescribed accounts.

Thus, the existing USOA is essentially a financial accounting system, designed to summarize the aggregate financial position and operating results of a business entity. The USOA prescribes company-

wide balance sheet and income statement accounts that are used in preparing the financial statements for regulating telephone companies.

By prescribing standard definitions of terms and providing instructions on the accounting treatment of various transactions, the USOA assists both state and federal regulatory commissions over time and across different telephone companies. Given its company-wide focus, however, the USOA only provides data for reviewing overall investment and expenses, property valuation, and depreciation rates. In principle, the USOA is designed to support public utility regulation that assesses only aggregate revenue requirements and rate of return on aggregate rate base, such as the regulation of a natural monopoly firm not subject to competition.

The Uniform System of Accounts Rewrite (USOAR). It is argued that today's USOA accommodates neither the rapid technological changes nor the new competitive forces that drive the telecommunications industry today.

The current USOA has two major segments: a balance sheet and an income statement. They are comprised of numbered accounts that are familiar to those who deal with them daily: telephone company personnel, regulatory agency staff, and public accountants specializing in telecommunications. Although some accounts have been eliminated, other vestiges of the earliest days of accounting and utility regulation remain. The USOA does not list balance sheet assets in the order of their liquidity (cash first, fixed assets later), for instance, even though this has been a standard accounting practice for decades. And, by today's standards, the USOA accounts are restrictive and unwieldy.

The main complaint of USOA critics is that the system was designed for a far simpler industry during the period when the basic aim of regulation was to police monopoly providers as they went about the job of expanding their networks.

With increasing competition and new technology in the industry, the FCC understood that something had to be done to bring the USOA more in line with the demands of the telecommunications industry. To that end, in June 1978, the FCC opened a formal USOA rewrite docket (78-196) to initiate the revision of the USOA.

The FCC revised Docket 78-196 in October 1981 (Second Supplemental Notice) to incorporate three major objectives:

- To revise the USOA to provide greater detail regarding the cost of providing services.
- To revise the USOA and bring regulatory accounting requirements into conformance with generally accepted accounting principles (GAAP).
- 3. To establish a Telecommunications Industry Advisory Group (TIAG) which was charged with the responsibility of developing a revised USOA (the USOAR).

Issues began to develop that were not considered prior to the USOAR. Some of the issues according to United States Telephone Association (USTA) were the costs, benefits, and practicality of implementing the revised USOA. The best estimates for industry-wide implementation costs approximate \$1 billion. Additionally, due to the perceived requirements for physical inventories of asset categories, such as central office equipment that will be disaggregated, the implementation would be

difficult. Furthermore, the coordination with Internal Revenue Service depreciation and tax rulings must be accomplished before implementation. 11

Another concern was the requirement to find alternatives for historical information used in various areas such as capital recovery, rate case filings, and income taxes: What would happen to the accounts when they are disaggregated, with no historical accounting data? In the mid-1980s, the issue of expensing vs. capitalization continues to be a problem the industry believes is not being addressed adequately. Another problem in dealing with cost recovery and revenue requirements is at the state level. Since the USOA revision was initiated on the federal level, the state commissions may disallow some of the costs of implementing the USOAR-specified costs because the new system may not be viewed as beneficial to ratepayers.

With all of the proposed changes -- such as a new account numbering scheme, account reorganization and redefinitions, full adoption of GAAP, and aggregation or disaggregation of existing accounts -- the two crucial questions that needed to be answered were:

- . What are the costs of installing a new system?
- When should the proposed overhaul take place?

In May 1986, the FCC adopted a new Uniform System of Accounts for telephone companies to become effective on January 1, 1988.  $^{12}$ 

The Commission modified its original proposal incorporating many of the suggestions given to them by a USTA task force and interested parties. In its ruling, the Commission has gone a long way in answering the questions given above. The Commission:

believes that the changes it has made to its proposal as a result of the comments received will

both shorten the lead time for implementation and reduce the costs contemplated by the parties... It believes that the costs have been reduced so much that no special treatment of implementation costs is necessary.

How effective this new ruling will be in providing more relevant information for costing than the existing USOA is difficult to tell. Answering that question will require several years of data recorded under the new USOA.

## Notes for Appendix IA

IA.1 In the Matter of American Telephone and Telegraph Company, Long Lines Department, Revisions of Tariff FCC No. 260 Private Line Services, Series 5000 (TELPAK), Docket No. 18128:

Memorandum Opinion and Order, 61 FCC 2d 587 (1976).

- IA. 2 United States Congress, House of Representatives, Report of Communications Companies (Part III, No. 1), H.R. 1273, 73rd Congress, 2nd Session (1934).
- Black's Dictionary of Law, 4th Ed., West Publishing Co., (1957) at p. 1541.
- 1A.4 National Association of Regulatory Utility Commissioners (NARUC), 1978 Annual Report on Utility and Carrier Regulation, Washington, D.C., (1979), at Table II, p. 411.
- IA.5 Depreciation Charges of Telephone Companies, ICC Docket No. 14700:

Report of the Commission on Further Hearing, 177 ICC.

- IA.6

  Ibid. The ICC considered several methods of recognizing such losses including their recognition only at the time of retirement. The ICC ultimately adopted the straight-line method of depreciation, and a single composite reserve account.
- IA.7
  Federal Communications Commission, Telegraph Division, Order No. 10, 1 FCC 85 (1934).
- IA.8

  American Telephone and Telegraph Co. v. United States, 14 F. Supp. 121 (N.Y. Dist. 1936), aff'd., 299 U.S. 232 (1936).
- Touche Ross, The FCC's USOA Rewrite Proposal: An Analysis, Washington, D.C. (1985), at p. 2.
- IA.10 Telecommunications Reports, Vol. 52, No. 18, May 5, 1986, at p. 2.
- IA.11 Bell Communications Research (BCR), USOAR Proposed Major Issues and Concerns, Basking Ridge, N.J. (August 20, 1984), at p. 5.
- In the Matter of Revision of the Uniform System of Accounts and Financial Reporting Requirements for Telephone Companies, CC Docket No. 78-196, adopted May 1, 1986, released May 15, 1986.
- IA.13 Coopers & Lybrand Associated Limited, Public Utility Topics, 86-5, July 1986, at p. 11.

# B. Three-Way Meeting

Three-way meetings are negotiation sessions between the FCC staff, state commission staff, and representatives of a carrier, which aim to produce a schedule of depreciation rates, agreed upon by all, for the carrier. Of importance is that these meetings

fulfill the requirement of section 220(1) of the Communications Act of 1934, . . . that the FCC consider the views and recommendations of state commissions before prescribing revised depreciation rates.

A year or more before represcription, the telephone company prepares engineering studies containing details of historic mortality and salvage experience by account, as well as plans for future retirement of existing plant. These studies are submitted to the FCC and state commission staffs 60 to 90 days before a scheduled three-way meeting. After the Commission staff and state staff review these studies, the three-way meeting takes place.

Until the mid-1980s, these sessions usually wound up with a settlement on lives and salvage, which was converted to depreciation rates. The company then filed schedules of agreed-upon rates which were subsequently placed on public notice and adopted by Commission order.

It was during this period that some state commissions began to object to the rates that were being prescribed by the FCC and the methods used to determine those rates. Some of those states began to prescribe their own rates based on methods they thought best, which in turn were contested by the companies. The FCC, which wanted uniform depreciation rates within its jurisdiction, began to preempt the state commissions and prescribe their own rates. This resulted in some state commissions appealing the FCC preemption decisions in the courts, ending

with the U.S. Supreme Court decision that the FCC had no authority to preempt the states on intrastate depreciation rates.\*

The Supreme Court decision is a landmark because among other things, it affects the three-way meeting process. States are now able to set their own intrastate depreciation rates and may or may not have FCC participation. In fact, the Vermont PSB has issued a docket inviting interested parties, including the FCC, to recommend a position regarding the depreciation expenses and rates for New England Telephone and Telegraph Company.<sup>2</sup>

It is apparent that in the future the state commissions will have a lot more to say regarding the intrastate depreciation rates. Heretofore, they were invited by the FCC to attend the three-way meetings. Now the states invite the FCC when intrastate depreciation rates are being proposed.

<sup>\*</sup> Appendix C offers background on the preemption issue and Supreme Court decision.

# Notes for Appendix IB

- IB.1 State of Vermont Public Service Board, PSB Docket No. 4920, Petition of New England Telephone and Telegraph Company requesting increase in rates, Brief of NET, August 21, 1984, p. 3.
- IB.2 State of Vermont, Public Service Board, Docket No. 5136, Investigation into Depreciation Expenses of the New England Telephone and Telegraph Company, 8/12/86.

### II. DRAMATIC CHANGES: 1980-1984

## A. Docket 20188

## 1. Background

In September 1973, AT&T filed a petition for rulemaking requesting that the Uniform System of Accounts (USOA) be amended to permit straightline equal life group (ELG) depreciation accounting, as opposed to existing straight line vintage group (VG) depreciation. In September 1974, the FCC issued a notice of proposed rulemaking requesting that comments be filed by March 1975, and reply comments that May. In addition to the Bell system, 18 parties filed comments in response to the Commission's notice and six parties filed reply comments. Those filing reply comments included the independent telephone companies, accounting firms, state regulatory commissions, and the Department of Defense. 1

AT&T principally sought to reword the definition of "group plan" to place property into groups expected to have the same or equal lives.

These would be known as equal life groups (ELG).

AT&T and others strongly supported the use of ELG, arguing that the method more accurately matches the rate of capital recovery with the rate of capital consumption. Use of ELG would increase cash flow and would allow internal generation of more of the future capital growth of the companies. AT&T proposed that conversion to ELG be phased in on a five-year basis to reduce its initial impact on revenue requirements. For this purpose AT&T would divide its plant accounts into five groupings:

- 1. Station equipment
- 2. Central office equipment
- 3. Outside plant

- 4. Buildings
- General equipment including furniture, vehicles, and other work equipment.

The FCC contracted with the accounting firm of Ernst & Ernst to evaluate this proposal. They were engaged to review the telecommunications industry's depreciation practices, develop a comprehensive background of depreciation accounts, and provide information for use in Docket 20188. Specifically, the contractor was to recommend whether ELG should be adopted.

In their study, Ernst & Ernst incorporated an analysis of the Peat, Marwick, Mitchell and Company report on depreciation and accounting performed for the Office of Telecommunication Policy (March 1974). Ernst & Ernst's major conclusion was that ELG was preferable to the other depreciation methods and that it should be adopted on a flash cut basis (immediately) with some form of "true up" — time to correct any discrepancies.

Although this report was delivered in 1977, the FCC did not finally act on the AT&T petition until 1980.

### 2. Orders and Opinions

FCC Report and Order, December 5, 1980, Docket 20188. This order permitted Class A and Class B telephone companies to use ELG and, in addition, to use the remaining life (RL) depreciation technique to adjust for changes in estimated future lives. The main points of the order were:

. It recognized the investors' right to recover their capital.

- It allowed the use of ELG in part because the accounting and depreciation rules should not stifle innovation and inhibit the introduction of new technology.
- It indicated a preference for vintage level reserve records for ELG plant investment and category-level reserves for removal and salvage for new plant.
- ELG could be phased in for new plant additions over three years starting in 1981 with outside plant accounts, central office equipment (COE) accounts in 1982, and all other accounts in 1983.
- . ELG would be for new additions only.
- . The FCC found it reasonable that present ratepayers incur some additional expense in order to preserve the integrity of the investment and to assure the continued and longer-term satisfaction of the congressional mandate's requirements.
- . The staff must not lose sight of the primary goal of the depreciation process -- to distribute the full cost of an asset in a reasonable manner over its service life.
- It recognized the need for a corrective mechanism to attain the goal of assigning or allocating costs over the service life of any particular asset. To that end, it approved the use of the remaining life method to allocate all costs by the time the asset is retired.

Blanket filing. Because of competition and new technology, there was a growing industry awareness of the severe under-depreciation of its plant. It was evident that there was a combined effort by the industry to persuade the FCC to shorten the depreciation lives of plant, and to

consider the use of a method that would correct for past errors in life estimation.

In September 1980, there was a blanket filing for customer premises equipment (CPE) in which AT&T and the BOCs specifically asked the FCC to shorten the lives of its plant and to implement remaining life. General Telephone Electronics (GTE) made a similar filing on behalf of its telephone companies. The FCC decided to insert the remaining life technique issue into the Docket 20188 order of December 1980.

NARUC petition. On February 26, 1981, the National Association of Regulatory Utility Commissioners (NARUC) filed a petition for reconsideration. NARUC argued that the adoption of SLELG as approved by the FCC would substantially increase revenue requirements and thereby subscriber rates. It also argued that the SLELG method is no more accurate than the straight line vintage group method which was in use at the time.

AT&T and GTE opposed NARUC's petition on the grounds that NARUC's argument was considered by the FCC who had rejected the argument in the order. The FCC agreed with AT&T and GTE and rejected NARUC's petition for reconsideration.

### 3. Effect On Industry

The Commission took a big step toward reform by its approval of equal life group and remaining life depreciation methods in its decision. The industry had supported both methods and therefore was pleased, but was disappointed that ELG was to be applied only to new investment, not embedded. The use of remaining life to correct the reserve deficiency applied to all plant, new and embedded, but ELG was to apply just to new investment; the VG method of depreciation was still

applied to the embedded plant. Thus, recovery of the deficiency would be at a slower rate than with the ELG method; from the industry's point of view, this order did not go far enough to correct the problem.

The 20188 decision represented a convergence of past issues and filings. At the same time it was a catalyst for future filings, which in turn were to lead to additional controversy as many state commissions opposed the resulting increases. The order in Docket 20188 itself did not change a single depreciation rate; it only authorized the use of the new methods. The companies had to go through several years of filings to implement specific depreciation rates using the new methods.

Relative to past depreciation decisions, the FCC order to implement ELG for new plant and remaining life methodology for all plant was a landmark. The combination of ELG and RL brought about substantial increases in depreciation rates. (see Table II-1 and Figure II-1). Even though the Docket 20188 decision was a welcome and needed one, the industry believed the FCC had not gone far enough. Many state commissions believed that the FCC had gone too far in this ruling. The FCC, however, was of the opinion that it had solved the industry's capital recovery problem.

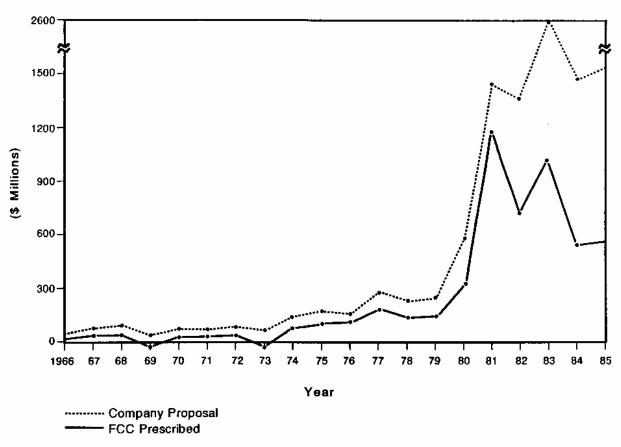
Table II-1

Comparison of Company Proposal and FCC Orders

Year	Company Proposal (\$ thousand)	FCC Order* (\$ thousand)
1980	\$ 615,953	\$ 323,869
1981	1,478,655	1,204,573
1982	1,353,155	726,436
1983	2,623,073	1,050,000
1984	1,199,000	425,000
1985	\$1,430,800	\$ 462,300

<sup>\*</sup>Bell System aggregate amounts for companies represcribed each year.

 <sup>1986</sup> Program on Information Resources Policy, Harvard University.



• 1986 Program on Information Resources Policy, Harvard University.

Figure II-1

Depreciation Expense Increases: Comparison of Company Proposal and Final Order

# Note for Appendix IIA

IIA.1 Amendment of Part 31 USOA, Report and Order, supra note 2.3.

# B. Customer Premises Equipment (CPE) Blanket Filing

# 1. Background

On September 22, 1980, AT&T requested the Commission to represcribe depreciation rates for terminal equipment in Account 231 (Station Apparatus) and Account 234 (Large Private Branch Exchange - Other), to become effective on January 1, 1981. In that filing, AT&T proposed to reduce service lives for its equipment, to allocate portions of the overall book reserve (Account 171) to accounts corresponding with Accounts 231 and 234, and to calculate depreciation rates on a straight line remaining life basis rather than using the whole life technique.

On January 8, 1981, the Commission placed AT&T's depreciation filing on public notice. Because the remaining life and reserve allocation issues were being addressed in Docket 20188, the Commission requested comments only on the proposed reduction of service lives.

In its filing, AT&T contended that there was an urgent need to represcribe depreciation for its terminal equipment. In asserting that the normal Commission procedures for altering depreciation rates were inadequate, the carrier stated that:

The alternative to this represcription filing is for each company to wait for its traditional triennial represcription. Upon consideration of the extant circumstances, this alternative is neither reasonable nor prudent. Three years would pass before all companies can begin depreciating terminal equipment in accordance with today's realities.

AT&T stated that the purpose of its request was to bring capital recovery for terminal equipment of the Bell operating companies into line with the realities of the 1980s environment of changing customer needs, rapidly changing technology, and full competition. AT&T also stated that the existing service lives for its terminal equipment were

too long, contending that the service lives were developed by "analyzing historical trends in retirements which did not reflect the effect of future developments." Instead of establishing service lives on the basis of the quality of equipment as in the past, capital recovery should also consider such factors as increased customer choices, improved technology, and frequent product changes, which frequently rendered equipment obsolete, according to the AT&T filing. In its filing, AT&T described the impact of these changes upon the broad "Telephone and Miscellaneous" subcategory of Account 231. Specifically, AT&T noted that "customer demand patterns have been altered dramatically and permanently in the past few years" by the emergence of competition in the terminal equipment marketplace. 4

# 2. Effect on Industry

For the first time in history, the Bell companies filed for new depreciation rates in unison. In doing so they ignored the traditional three-year interval, and they were asking for a substantial amount of money without any prior agreement from the FCC staff. The filing eventually resulted in represcription by the end of 1981, which produced for the companies a total of approximately \$500 million in increased depreciation accruals per year.

There was also another first: Marketing studies became a part of the depreciation study. Previously, historical plant retirement data and engineering retirement estimates had been used to estimate equipment lives; the idea that competition and marketing studies could have anything to do with depreciation had not been explicitly considered.

Another important aspect of this proceeding was its contribution to approval of the remaining life method in Docket 20188. Somewhat

surprisingly, the FCC inserted the remaining life method into the 20188 order, even though it had not been part of the original 1973 AT&T petition in that docket. Apparently the CPE filing requesting the remaining life method influenced the Commission. In any event, by the time the FCC explicitly considered the CPE filing (with the Public Notice in January 1981), the remaining life technique had already been approved in the 20188 order issued December 1980.

# Notes for Appendix IIB

- IIB.1 Ibid.
- Common Carrier Action AT&T Filing for Revised Depreciaton Rates for Terminal Equipment, 46 Fed. Reg. 3274 (January 14, 1981).
- IIB.3 AT&T Terminal Equipment Depreciation Filing. BOMC 1, Sec. 1-A at 3 (filed September 22, 1980).
- IIB.4 Ibid.

## C. FCC Preemption

# 1. Authority (1934 Communication Act)

The U.S. Constitution rests supreme legislative power in Congress.

Under the supremacy clause, federal laws can preempt, or invalidate,

existing or future state laws on the same issue. 1

In 1934, Congress enacted the Communication Act of 1934, which among other things gave the FCC regulatory authority to establish depreciation practices and required the keeping of prescribed accounts. To ensure an efficient operation of the interstate telephone network, the FCC interpreted section 220 (b)<sup>2</sup> of the Act as giving it the power to preempt any state commission that prescribes inconsistent depreciation rates or methods, or does not implement those rates or methods the FCC prescribed.

### 2. Issues

During the mid-1980s, federal prescription of telephone depreciation rates has surfaced as a source of controversy. The issue is whether the FCC has the authority to preempt depreciation rates and methods for classes of property used by telephone companies for intrastate purposes, or whether such rates and methods are within the jurisdiction of a state regulatory body. That is, in local rate cases, must state commissions recognize the expenses produced by FCC-prescribed depreciation rates?

The preemption issue had its genesis in two separate orders issued by the FCC in 1980 and 1981. Both orders were designed to enable carriers to employ depreciation practices that would more accurately compute actual depreciation rates. As previously explained, the 1980 order was Docket 20188, which authorized the ELG and RL methods. The 1981 order provided that inside wiring in homes and business no longer

be treated as a capital investment to be depreciated over time, but rather as a cost to be expensed to current users.

The two orders were first challenged on April 30, 1981, when NARUC filed a petition for clarification of the 1981 wiring order.

Specifically, NARUC requested that the FCC issue a statement that the provisions of the wiring order were not binding upon state regulatory commissions. The FCC responded to the petition in a memorandum opinion and order of April 27, 1982, in which it concluded that in light of the relevant legislative history of the Communication Act, "where state (accounting and depreciation) regulation is recoverable with Federal policies or rules, there is no occasion for us to override state agency actions in furtherance of legitimate state regulatory objectives." 3

In response to the FCC's opinion and order, AT&T filed a petition for reconsideration on June 7, 1982. After further pleadings and comments from the industry, the FCC reversed its earlier position in a second memorandum opinion and order of January 6, 1983. In reversing itself, the FCC supported the notion that the plain terms of section 220 of the Act appear "clearly to preempt the states in connection with depreciation expense determinations and the related accounting."

The FCC noted in its 1982 memorandum opinion and order that it had never attempted to prevent any state commission from departing from federal accounting and depreciation rules. But the FCC never found it necessary to do so until the current decade. Before then, increases in depreciation expenses were relatively small, and state commissions tended voluntarily to follow federal prescriptions; therefore the issue of preemption did not surface. After the orders in the early 1980s however, and the subsequent larger increases in depreciation expense,

several state commissions refused to follow the FCC's determinations concerning depreciation.

# 3. Tests

The FCC's preemption of state commissions' prescription of higher depreciation rates in recent years has led many states to challenge the FCC through the courts. Indeed, as of spring 1986 there are numerous proceedings in various cases in eight circuit courts of appeal, as well as in the Ohio Supreme Court, reflecting disputes between the states and the FCC regarding the FCC's power to preempt the states on depreciation matters. For example:

Virginia State Corporation Commission v. FCC. The FCC's authority to preempt inconsistent state regulation of depreciation methods and classes of property was upheld by the Fourth Circuit Court. The court concluded that "improper capital recovery does pose a true threat in today's competitive market." It held that if the large amount of intrastate investment (75%) "should fail properly to reflect its true, rapid depreciation, interstate service would then suffer the effects of delayed innovation." 5

New England Telephone and Telegraph Company v. Public Utilities

Commission of Maine. In this case the First Circuit Court vacated a

district court decision granting NET an injunction ordering the Maine

Commission to implement the FCC-prescribed remaining life depreciation

rates and methodology pursuant to the FCC's preemption order. The court

held that NET had no authority to seek enforcement of the preemption

order. It concluded that Section 401 (b), which permits injured private

parties to apply to United States district courts for enforcement of FCC

orders, not for enforcement of notices of proposed rulemaking, was only applicable to adjudicatory orders such as the preemption order.  $^6$ 

Cincinnati Bell Telephone Company v. Public Utilities Commission.

In this case, the Ohio Supreme Court upheld the Ohio PUC's prescription of rates based on whole life depreciation. The court concluded that the FCC's preemption order was beyond its scope and that the Ohio Commission's whole life prescription was reasonable and lawful.

Overview and later developments. The Fourth Circuit case was the centerpiece of the test cases. It was the only case that dealt with the broad issue of preemption. The other cases were narrower in scope in that the courts were being asked to resolve specific rates.

Many of the cases decided by district and circuit courts, including the three cases cited above, were appealed to the United States Supreme Court. The Supreme Court was being asked to resolve lower court conflicts over depreciation and jurisdictional disputes in order to create a uniform policy that the telecommunications industry and state public service commissions (PSCs) can follow.

But more importantly, the Supreme Court had to clarify the conflicting lower court opinions. For example, the Fifth Circuit Court, which affirmed a lower court's injunction ordering the PSC to allow rates to cover depreciation expenses, rejected the arguments advanced in the First Circuit regarding the right of a private party to enforce the FCC preemption order. One of the prime functions of the U.S. Supreme Court should be "to decide cases reviewed in the lower courts with conflicting results." Indeed, the preemption issue was put on the Supreme Court's October 1985 calendar.

In May 1986 the Supreme Court, in its 5-to-2 decision, ruled that the FCC had overstepped its authority in prescribing intrastate depreciation rates.  $^{12}$ 

The Court held that Section 152(b) of the 1934 Communication Act bars federal preemption of state regulation over depreciation of dual jurisdiction property for intrastate ratemaking purposes. 13

In its decision the Court also said that while state regulation will "generally be displaced" if it's an obstacle to accomplishment of congressional wishes, a federal agency may preempt "only when and if it is acting within the scope of its congressionally delegated authority." It concluded that Section 152(b) was "Congressional denial of power to the FCC and that it may not take preemptive action merely because it thinks such action will best effectuate federal policy. An agency may not confer power upon itself. To permit an agency to expand its power in the face of a congressional limitation on its jurisdiction would be to grant the agency power to override congress." The Court said it was "unwilling and unable" to permit that to happen. 14

The effects of the Court's decision may be widespread. Besides upholding the power of the states to prescribe different depreciation rates for the same jointly used property, the decision seems to undermine the rationale of previous Court of Appeals 15 decisions affirming FCC preemption in other areas. In addition, it could determine such fundamental questions as what strategies the telephone companies will take, which kinds of services will be provided by which companies, and what role each player will have in the future of the industry.

## Notes for Appendix IIC

- IIC.1 United States Constitution, Article IV, Clause 2.
- IIC.247 U.S.C. Section 220 (b). Section 220 (b) provides:
  - (b) The Commission shall, as soon as practicable, prescribe for such carriers the classes of property for which depreciation charges may be properly included under operating expenses, and the percentages of depreciation which shall be charged with respect to each of such classes of property, classifying the carriers as it may deem proper for this purpose. The Commission may, when it deems necessary, modify the classes and percentages so prescribed. Such carriers shall not, after the Commission has prescribed the classes of property for which depreciation charges may be included, charge to operating expenses any depreciation charges on classes of property other than those prescribed by the Commission, or, after the Commission has prescribed by the Commission, or, after the Commission has prescribed percentages of depreciation, charge with respect to any class of property a percentage of depreciation other than that prescribed therefore by the Commission. No such carrier shall in any case include in any form under its operating or other expenses any depreciation or other charge of expenditure included elsewhere as a depreciation charge or otherwise under its operating or other expenses.
- In the Matter of Amendment of Part 31, Uniform System of Accounts
  for Class A and Class B Telephone Companies, of the Commission's
  Rules and Regulations with Respect to Accounting for Station
  Connections, Optional Payment Plan Revenues and Related Capital
  Costs, Customer Provided Equipment and Sale of Terminal Equipment,
  CC Docket No. 79-105 [hereinafter cited as Docket No. 79-105:

Memorandum Opinion and Order, 89 FCC 2d 1094, (1982).]

Prescriptions Under Section 220 of the Communications Act and (ii)

Established FCC Policies:

Memorandum Opinion and Order, 92 FCC 2d 864 (1983).

- Virginia State Corporation Commission v. FCC, supra note 3.12.
- New England Telephone and Telegraph v. Public Utilities Commission of Maine, 742 F.2d 1 (1st Cir. 1984), at p. 5.
- Cincinnati Bell Telephone Company v. Public Utilities Commission of Ohio, 12 Ohio St. 3d 280 (1984).
- South Central Bell v. Louisiana Public Service Commission, Civil No. 83-8494, 744 F.2d 1107 (5th Cir. 1984).

- Samuel Estreicher and John Sexton, "Streamlining the High Court," New York Times, March 27, 1985, at p. A27.
- IIC.10 Virginia State Corporation Commission v. FCC, supra note 3.12.
- IIC.11 Telecommunications Reports, Vol. 52, No. 3, January 20, 1986, at  $\frac{1}{p}$ . 12.
- Louisiana Public Service Commission v. FCC, 103 S. Ct. 2109 (1983).
- IIC.13 Ibid.
- IIC.14 Ibid.
- IIC.15
  E.g., North Carolina Utilities Commission v. FCC, 537 F. 3d 787
  (CA4)m cert. denied, 429 U.A. 1027 (1976); Puerto Rico Telephone
  Company v. FCC, 553 F. 2d 694 (CA1 1977); New York Telephone Co.
  v. FCC, 631F, 2d 1059 (CA2 1980).

## D. Computer Inquiries II and III

Competition has been an issue in the telecommunications industry since the early 1960s. Competition was not just the result of technology, but part of the gradual regulatory accommodation to the emerging engineering possibilities. Public policy has become overwhelmingly procompetitive. These procompetitive actions by the FCC have forced the telephone companies to unbundle various elements of their services in their prices.

The FCC's Computer Inquiry II (CI-II) Docket 20828 proceeding considered the issue of continued regulation of terminal equipment and services that straddle the border between data processing and communications. In its decision, the FCC determined that AT&T and the BOCs' customer-provided equipment should be deregulated and offered through one or more separate subsidiaries.

In the First Computer Inquiry (CI-I), the FCC established a maximum separation policy in its final decision of 1971. This decision permitted carriers (other than AT&T and the Bell operating companies) to offer unregulated data processing services only through a separate corporate entity.

The decision in Docket 20828 undertook the task of deregulating what were considered enhanced services and established criteria for distinguishing between computer and communications services. Enhanced services combine basic service with computer processing applications that act on the format, control, code, protocol, or similar aspects of the subscriber's transmitted information, or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information. Basic services were

limited to the common carrier offering of transmission capacity for the movement of information.

Basic services remain subject to regulation under Title II, common carrier concepts of the Communication Act of 1934. The FCC analyzed its regulation of the industry under the Act in the context of rapidly changing technological and market developments, which affect both communications and data processing services. It found an increasing reliance of society on common carrier facilities in the movement of all kinds of information and the need to tailor communications-related services to individual user requirements.

In its decision, the Commission sought rapid advancement of enhanced services technology in a free market environment. It also attempted, however, to insure that the essential, basic communications network through which these services are offered remain available to all, on a nondiscriminatory basis, through traditional common carrier regulation.

In the public interest, the FCC refrained from regulation of enhanced services, to avoid creating artificial barriers to entry in a market area where competitive forces foster technological growth. The Commission found that inherent in enhanced services is the provider's ability to custom-tailor offerings to the particular needs of individual customers. Thus, vendors should have the ability to provide such services on an indiscriminate basis. Enhanced services were not contemplated in the Act of 1934.

The FCC's deregulation of a portion of the industry and allowance of competition in another portion has exacerbated the industry capital recovery shortfall. When the industry was a virtual monopoly with just a few major players, any underaccruals for depreciation would eventually

be recovered. Post-divestiture, however, with a partially regulated and partially deregulated industry, customer demand is no longer guaranteed.

In August 1985 the FCC issued a Third Computer Inquiry. In that Docket 85-229, notice of proposed rulemaking, "the FCC was seeking comment on [its] synthesis of computer inquiry II, Competitive Common Carrier, and cost accounting approaches that have been developing at the agency."

Michael S. Slomin, legal assistant to the Common Carrier Bureau Chief, has described events leading up to the Computer Inquiry III:

regulatory policies developed in computer II that were designed to separate carriers' basic regulated activities from their unregulated activities, and particularly those governing AT&T and the Bell Operating Companies, no longer appear to be contributing to the development of an effective or efficient telephone network. As a result . . . some technologies have not been implemented, while others have been subject to extensive waiver proceedings, creating an undesirable environment of uncertainty and delay.

### He also reported that

as the centerpiece of this proceeding, we recommend that the FCC propose to eliminate or minimize structural separation governing the offering of enhanced services by AT&T and the BOCs, and that it seek comment on a targeted approach that would apply regulatory protections only to competitive activities of dominant carriers, and not to others. We also recommend that comment be sought on whether the treatment of various "dominant" carriers should be differentiated.

By November 1985, the FCC received close to 100 sets of comments on its notice of proposed rulemaking. The sources of comments included carriers and terminal equipment providers, who expressed alarm over abandonment of structural separation, user organizations who varied widely in their approach to the proposal, government agencies, independents, states, and Bell regional companies offering their own

plans for a new regulatory approach to permit greater flexibility and innovation in service offerings.

The quantity and tone of comments clearly indicate how important the FCC proposal is to the various players. Divestiture of AT&T and the former Bell companies, competition, and new technology appear to be driving the industry in a new, still undetermined direction.

On June 16, 1986, the FCC released its report and order in the Computer III Docket 85-229. It concluded that structural separation for the enhanced services operations of AT&T and the Bell operating companies should be replaced with various non-structural safeguards. 8

The FCC said that:

Our elimination of structural separation for AT&T and the BOCs will permit these carriers to engage in the joint marketing of enhanced and basic services. We do not view such joint marketing as an improper, anti-competitive practice by these carriers, and see significant public costs and few benefits in carving out a limited area of structural separation for marketing. . . . We see no reasons to handicap AT&T and the BOCs competitively in this regard. . . . Our original reasons for deregulating enhanced services are, if anything, more compelling now, as the telecommunications industry in general and the enhanced services market in paticular have become increasingly competitive.

It is clear that the FCC continues to believe that competition is one of the driving forces that prompts the commission to deregulate, even more, the provision of enhanced services by common carriers.

## Notes for Appendix IID

In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), FCC Docket No. 20828:

Final Decision, 77 FCC 2d 384 (1980).

In the Matter of Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities, Docket No. 16979 [hereinafter cited as First Computer Inquiry]:

Final Decision and Order, 28 FCC 2d 267 (1971).

- At the time of the <u>First Computer Inquiry</u>, <u>supra</u> note IID.2, AT&T was barred from offering any unregulated telecommunications services by the 1956 consent decree in <u>United States v. Western Electric Co. and American Telephone and Telegraph Co.</u>, Civil No. 17-49 (D.C.N.J. 1956), 13 RR 243; 161 USPQ (BNA) 705; 1956 Trade Cases (CCH) Section 68246, at p. 71134.
- In the Matter of an Inquiry into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems; and Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, CC Docket No. 79-318:

Report and Order, 86 FCC 2d 469 (1981).

- Telecommunications Reports, Vol. 51, No. 30, July 29, 1985, at p. 1.
- IID.6 Ibid., at pp. 1-2.
- Telecommunications Reports, Vol. 51, No. 46, November 18, 1985, at
- Telecommunications Reports, Vol. 52, No. 25, June 23, 1986, at p. 11.
- IID.9 <u>Ibid</u>., at pp. 12, 13.

# E. Divestiture, Access Charges, and Bypass

Divestiture and related developments, summaried in this section, continue to have a profound effect on depreciation and capital recovery. In 1974 the Department of Justice (DOJ) filed an antitrust complaint to break up AT&T's monopoly in the telecommunications industry. The law suit that led to the Bell breakup was initiated because the government believed AT&T was thwarting the growth of competition.

On January 1, 1984, the Bell system's over 100-year existence ended with the Modified Final Judgment (MFJ). This consent agreement had been entered into by AT&T and the DOJ on January 8, 1982, and was subsequently approved by the U.S. District Court for the District of Columbia. The MFJ settled the 1974 antitrust complaint and essentially replaced an earlier (1956) consent decree. Under the terms of the settlement, the BOCs were spun off, with AT&T retaining most long-distance operations and terminal equipment.

The divested operating companies were permitted to offer local services, as well as toll services within their restricted operating territories, called Local Access and Transport Areas (LATAs). These companies could continue to provide new terminal equipment through a separate subsidiary as provided by CI-II, although they could not engage in manufacturing. The BOCs were reorganized into seven regional holding companies (RHCs). The RHCs retained approximately 77% of the former Bell system assets, 49% of operating revenues, 50% of net income, and 60% of employees.

Access charges are payments from interexchange carriers to local exchange telephone companies for use of exchange plant to interconnect a customer's premises with interexchange networks of long-distance

carriers. These costs have historically been recovered through allocations set forth in the jurisdictional Separations Manual.

Revenues covering such separated costs were obtained through bundled, average toll rates. Under an access charge system, exchange costs are recovered in rates associated with services providing the actual access functions.

Beginning in June 1985, most residential customers began paying a \$1/month interstate end user charge. In 1986, this charge rose to \$2/month, and at that point, the FCC determined that access charges should be held at \$2 to be reviewed before any additional increases. 4

The access charge decision included a 35 cent/month surcharge that state regulators were permitted to add to all local charges in 1985. This surcharge was intended to replace a revenue decrease caused by businesses' offering of rate reductions to large-volume users who threatened to leave the public network.

Bypass is any arrangement a customer or carrier uses to avoid or reduce telephone company-provided network services. Some players argue that there are two types of bypass: economic and uneconomic bypass. Economic bypass is said to occur where the costs to the bypass carrier or the customer are lower than the telephone company's costs for providing the same usage through switched access service. Uneconomic bypass is said to occur where the costs to the carrier or the customer are higher than the telephone company's costs for switched access service, but lower than the regulated rate the company is required to charge for that service. In theory, the exchange companies should not object to economic bypass because technology permits the costs of carriers to decrease and customers to benefit by improved and innovative

services. Uneconomic bypass is a problem because carriers subordinate technological innovation to methods of avoiding artificially high prices.

Major technological innovations have significantly increased bypass alternatives. For example, customers can install high-capacity private microwave systems at lower costs than in the past. Satellite and teleport facilities provide technologies that encourage direct end-to-end transmission. Other alternatives to bypass are cellular mobile technology, digital termination systems, private fiber optic systems and telecommunications-enhanced real estate plans.

The customers who have the incentive to bypass are the major business customers. Their leaving the system would mean that the telephone companies' costs of doing business would be spread to a decreasing number of customers. The rates would have to increase, forcing out more business customers. The spiraling effect would eventually foreclose the companies' ability to recover the reserve deficiency and would thus affect the residential user.

## Notes for Appendix IIE

- AT&T was barred from offering any unregulated telecommunications services by the 1956 consent decree in <u>United States v. Western Electric Co. and American Telephone and Telegraph Co.</u>, Civil No. 17-49 (D.C.N.J. 1956), 13 RR 243; 161 USPQ (BNA) 705; 1956 Trade Cases (CCH) Section 68246, at p. 71134.
- IIE. 2
  LATA is the acronym used for Local Access and Transport Area, which is described as a geographic area which shall inter alia, "encompass one or more continuous local exchange areas serving common social, economic and other purposes." No LATA may cross state boundaries or include more than one standard court. United States v. American Telephone and Telegraph Co., Modification of Final Judgment, Civil Nos. 74-1698 and 82-0192, 552 F. Supp. 131 (D.D.C. 1982), at p. 229; aff'd mem., 103 S.Ct. 1240 91983).
- The percentages were computed from data supplied in American
  Telephone and Telegraph, Information Statement and Prospectus to
  Shareholders, November 8, 1983, at pp. 6-13. The numbers are
  being contested by both AT&T and the RHCs. See "AT&T and BOCs in
  Court Fight over Billions in Breakup Assets," Communications Week,
  July 16, 1984, at pp. 1, 29.
- IIE. 4 In the Matter of Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, CC Docket No. 80-286:

Recommended Decision and Order, 49 Fed. Reg. 48325

(December 12, 1984);
Decision and Order, 50 Fed. Reg. 939 (January 8, 1985).