



1 of 100 DOCUMENTS

**COMMUNICATIONS SATELLITE CORPORATION, PETITIONER v.
FEDERAL COMMUNICATIONS COMMISSION AND UNITED STATES OF
AMERICA, RESPONDENTS AMERICAN BROADCASTING COMPANIES,
INC., ET AL. THE EUROPEAN BROADCASTING UNION, INTERVENOR**

No. 75-2193

UNITED STATES COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT

611 F.2d 883; 198 U.S. App. D.C. 60; 1977 U.S. App. LEXIS 11187; 41 Rad. Reg. 2d (P & F) 1051

January 27, 1977, Argued

October 14, 1977, Decided

PRIOR HISTORY: [**1] Petition for Review of Order of the Federal Communications Commission

COUNSEL: Lloyd N. Cutler, Washington, D. C., with whom J. Roger Wollenberg, Sally Katzen, Robert B. McCaw, Marianne K. Smythe, William H. Berman and Lawrence M. DeVore, Washington, D. C., were on the brief, for petitioner.

John E. Ingle, Counsel, F.C.C., Washington, D. C., with whom Ashton R. Hardy, Gen. Counsel, Daniel M. Armstrong, Associate Gen. Counsel, F.C.C., Barry M. Grossman and Michael Pugh, Attys., Dept. of Justice, Washington, D. C., were on the brief, for respondents.

Howard Monderer, Washington, D. C., was on the statement in lieu of brief, for intervenor NBC, Inc.

Joseph M. Kittner and Norman P. Leventhal, Washington, D. C., were on the statement in lieu of brief for intervenors American Broadcasting Companies, Inc., et al.

Joseph DeFranco, New York City, was on the statement in lieu of brief for intervenor CBS, Inc.

Robert D. Hadl, Washington, D. C., entered an appearance for intervenor The European Broadcasting Union.

JUDGES: Before Mr. Justice CLARK, * of the Supreme Court of the United States, and MacKINNON and ROBB, Circuit Judges.

* Mr. Justice Tom C. Clark, United States Supreme Court, Retired, sitting by designation pursuant to 28 U.S.C. § 294(a). Justice Clark heard oral argument in this case but subsequently died and did not participate in the decision.

Opinion for the court filed by MacKINNON, Circuit Judge.

[**2]

OPINION BY: MacKINNON

OPINION

[*885] The Communications Satellite Corporation (COMSAT) was created by the Communications Satellite Act of 1962, 76 Stat. 719, 47 U.S.C. §§ 701-744 (1970), for the purpose of developing a profitable commercial international telecommunications technology using earth satellites to relay signals. The corporation was not to "be an agency or establishment of the United States Government," 47 U.S.C. § 731, yet it was subject to the regulation of the President, NASA, and the FCC in important specified respects. 47 U.S.C. § 721. As a communications common carrier, COMSAT was placed under the supervisory authority of the Federal

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Communications Commission (FCC) in order to guarantee that the rates it charged its customers (all common carriers) were "just and reasonable." 47 U.S.C. § 721(c)(2).

In June of 1964, COMSAT conducted the only public offering in its career. It sold 50 million shares of common stock to the public [*886] at large, at \$ 20 per share. ¹ This 200 million dollar capitalization (less underwriting expenses) was initially devoted to COMSAT's [*3] pursuit of an international satellite system, but COMSAT was soon able to carry on its international satellite activities (INTELSAT) with less than the 200 million dollars that had been raised. A domestic satellite venture to be carried on by a separate corporate subsidiary, COMSAT General, was approved by the FCC in 1972. ² It was to this subsidiary that COMSAT devoted the funds not required for INTELSAT. COMSAT General's operations are not at issue here; the proceedings on review before this court concern only COMSAT's rates for international satellite telecommunications (INTELSAT) operations.

¹ The equal division of ownership was required by the statute. 47 U.S.C. § 734(b)(2).

² *Establishment of Domestic Communications Satellite Facilities by Non-Governmental Entities*, 35 FCC2d 844, 853 (1972). See also *Applications of Communications Satellite Corp.*, 45 FCC2d 288, 444 (1974) (funding decision).

On May 28, 1965, COMSAT filed with the FCC its first [*4] set of rates for international telecommunications services, pursuant to 47 U.S.C. § 204. Protracted hearings, stays, and delays followed, ³ culminating in the 1975 decision which is the subject of the present review before this court, *Communications Satellite Corp.*, 56 FCC2d 1101 (1975). In that decision, the FCC decided to consider only COMSAT's future rates, setting a maximum rate of return that COMSAT may earn and requiring COMSAT to file appropriately lowered rates. COMSAT was permitted to retain the revenues derived from the rates that it had charged in the past. Pursuant to a stay order issued by this court on June 16, 1976, lower rates consistent with the Commission's decision have not been collected, but the excess payments have been escrowed by COMSAT to protect the interests of the rate payers.

³ The procedural history will be treated in more detail below. See p. -- - of 198 U.S.App.D.C., p.

886 of 611 F.2d, *Infra*.

COMSAT has appealed the FCC's [*5] decision to this court. Several broadcasting companies have intervened. Jurisdiction is vested in this court by 47 U.S.C. § 402(a) (*Supp. V 1975*) and 28 U.S.C. § 2342(1) (*Supp. V 1975*):

The court of appeals has exclusive jurisdiction to enjoin, set aside, suspend (in whole or in part), or to determine the validity of . . . all final orders of the Federal Communications Commission made reviewable by *section 402(a)* of title 47

The scope of our review is in keeping with the Administrative Procedure Act: conclusions by the Commission will not be set aside unless arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; ⁴ findings of fact will not be upset if supported by substantial evidence. ⁵

⁴ 5 U.S.C. § 706(2)(A) (1970).

⁵ 5 U.S.C. § 706(2)(E) (1970).

I. THE NECESSITY FOR A PRELIMINARY DECISION

Initially a question of procedure is raised concerning the Commission's [*6] decision. The rate proceeding was exceptionally drawn out, commencing in June of 1965, ⁶ postponed ⁷ and then resumed ⁸ in 1971, suspended again in 1974, ⁹ and taken up again for the last time in September of 1974. ¹⁰ The 1965 order required that the hearing examiner bypass an initial decision, certifying the record directly to the Commission, but it did provide that the Chief of the Common Carrier Bureau should prepare and issue a recommended decision. (J.A. 124; 38 FCC 1286, 1296). The 1971 resumption order reversed the procedure ordered in [*887] 1965: the hearing examiner was to prepare an initial decision but the Chief of the Common Carrier Bureau was not. (J.A. 129-130; 27 FCC2d 930-931). The final order modifying the procedure occurred in 1974. The Commission had interrupted the proceedings earlier that year in the hopes of accommodating a negotiated settlement. (J.A. 135, 45 FCC2d 286). When that did not materialize, it was considered crucial, in order to avoid adding to the already extensive delay, that all intermediate opinions be omitted, and the Commission so ordered. The hearing before the

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administrative law judge was [**7] ordered resumed, and a timetable for finishing imposed:

- 6 *Communications Satellite Corp.*, 38 FCC 1286 (1965).
- 7 *Communications Satellite Corp.*, 27 FCC2d 927 (1971).
- 8 *Communications Satellite Corp.*, 32 FCC2d 533 (1971).
- 9 *Communications Satellite Corp.*, 45 FCC2d 286 (1974).
- 10 *Communications Satellite Corp.*, 48 FCC2d 86 (1974).

We believe that it is reasonable to require that cross-examination herein be resumed no later than the first week in September, 1974 and that all remaining testimony be completed and the record closed within approximately 3 months thereafter, i. e. no later than December 1, 1974. In this connection, perhaps it is unnecessary to call attention to the powers entrusted to the presiding judge to require, among other things, that testimony be submitted in writing and that cross-examination be limited to that "required for a full and true disclosure of facts." 5 U.S.C. 556 [**8] (d). Upon the closing of the record we shall require the judge to certify the record to the Commission for final decision by it. In our opinion this is required under the circumstances of this case for due and timely execution of our functions. Finally, we believe that all proposed findings and briefs and replies should be submitted by no later than February 1, 1975, thereby permitting the Commission sufficient time to have such oral argument as it may deem necessary or desirable and to render its final decision by April 1, 1975. The Commission requests all parties to cooperate fully in adhering to the schedule we have set forth herein.

(J.A. 138-139; 48 FCC2d 86, 87-88).

COMSAT challenges this procedure bypassing an initial decision by the administrative law judge. The Communications Act and the Administrative Procedure Act are both cited by COMSAT as requiring that the administrative law judge conducting the hearing is obliged to file an "initial, tentative, or recommended decision," unless the Commission finds on the record "that due and timely execution of its functions imperatively and unavoidably" require that the record be certified to the Commission without [**9] initial decision. 47 U.S.C. § 409 (1970); 5 U.S.C. § 557(b)(2) (1970).

At the start, it should be noted that COMSAT was afforded a full adversary hearing, with the right of cross-examination as described in the Commission's order quoted above. What COMSAT did not obtain was the right to object to specific recommendations that might have been made by the administrative law judge. Had COMSAT requested a rehearing under 47 U.S.C. § 405 (1970), of the Communications Act, it would have had an opportunity to rebut specific findings, but it made no such request. However, this is not a case like *Pacific Gas Transmission Co. v. FPC*, 175 U.S.App.D.C. 366, 536 F.2d 393, Cert. denied, 429 U.S. 999, 97 S. Ct. 527, 50 L. Ed. 2d 610 (1976), where the statute requires the filing of a petition for rehearing as an exhaustion prerequisite to challenging a Commission order. Hence, while there is no adequate reason given to explain why COMSAT did not seek rehearing if it were truly concerned about its inability to respond to specific findings, and there is no proffer by COMSAT of any information that had [**10] not been brought out over the long course of the administrative hearing, that situation does not preclude COMSAT from asserting a right to an initial decision.

An initial decision by the administrative law judge, however, is not required for all Commission determinations. The Administrative Procedure Act calls for an initial decision "when a hearing is required to be conducted in accordance with section 556 of this title." 5 U.S.C. § 557(a) (1970). Section 556, by its own terms, applies "to hearings required by section 553 or 554 of this title to be conducted in accordance with this section." 5 U.S.C. § 556(a) (1970). Section 553 specifies "When rules are required by [*888] statute to be made on the record after opportunity for an agency hearing, sections 556 and 557 of this title apply instead of this subsection."

Hence, the requirement for an initial decision is

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imposed in the present case only if the Commission's action can be termed adjudication,¹¹ or if the Satellite Act or the Communications Act requires a hearing.

11 The Communications Act requires an initial decision only for a "case of adjudication (as defined in the Administrative Procedure Act) which has been designated by the Commission for hearing." 47 U.S.C. § 409(a) (1970). Hence, both the Communications Act and the Administrative Procedure Act require an initial decision for adjudication. In light of the disposition we make of this issue, we do not decide whether there is merit in COMSAT's argument that rate-making for a single company is adjudication, even when the proceeding has future effect only, and the Administrative Procedure Act classifies "the approval or prescription for the future of rates" as a rule-making process. 5 U.S.C. § 551(4) (1970).

[**11] The Communications Act of 1934 specifies the following procedure for FCC review of new charges filed with it:

Whenever there is filed with the Commission any new charge . . . the Commission may either upon complaint of upon its own initiative without complaint, upon reasonable notice, enter upon a hearing concerning the lawfulness thereof; . . . and after full hearing the Commission may make such order with reference thereto as would be proper in a proceeding initiated after it had become effective.

47 U.S.C. § 204 (1970). This specified procedure does require a decision "made on the record after opportunity for an agency hearing," so an initial decision is necessary unless the exception applies that "due and timely execution of (the Commission's) functions imperatively and unavoidably" requires proceeding at once to final Commission decision. 47 U.S.C. § 409 (1970); 5 U.S.C. § 557(b)(2) (1970).

(1) We hold that the exception does apply because the Commission specifically found that "under these circumstances due and timely execution of (its) functions Imperatively and unavoidably requires the omission [**12] of the Judge's initial decision." (J.A. 142; 49 FCC2d 221, 223) (emphasis in original). The reason

cited, the exceptional delay that had already plagued the proceedings, was a thorough justification for avoiding additional delay. Nor does the fact that the Commission omitted the precise words "imperatively and unavoidably"¹² in its original order undercut the basis for that order as set forth at the time it issued. The Commission's explanation of its concern for delay at the time of the order adequately supports a conclusion that "due and Timely Execution" of its functions "imperatively and unavoidably" required a streamlined procedure, even if those precise words were not used until later. This is especially true in light of the other procedural shortcuts ordered by the Commission at the same time: taking written testimony, limiting cross-examination, ordering a strict briefing schedule, etc. See quotation at p. -- - of 198 U.S.App.D.C., p. 887 of 611 F.2d, Supra. *Channel 16 v. FCC*, 97 U.S.App.D.C. 179, 229 F.2d 520 (1956), is distinguishable, since there the Commission's insistence on expedition was belied by its contemporaneous procedural [**13] orders. (It required an initial decision for five of the six issues in the case, and bypassed that step only for one determination. See 97 U.S.App.D.C. at 182-83, 229 F.2d at 523-24). Here, the Commission's valid concern with completing the delayed rate-making process was consistently demonstrated.

12 The phrase was used in a later opinion that same year; it is this later opinion that is quoted in the text.

In sum, in the circumstances presented by this greatly prolonged case, there was overwhelming justification to implement the procedural shortcut involved in bypassing an initial hearing by the administrative law judge.

II. THE RATE BASE

A. "Sustaining Capital" and the Method of Evaluation

In June of 1964, the sale of its 10 million shares of common stock at \$ 20 per share [*889] netted COMSAT just under 200 million dollars of equity capital. Because of early technological successes with the synchronous satellite concept, and a diplomatic breakthrough as well in the establishment of [**14] a multi-member international consortium,¹³ COMSAT soon found that it did not require the full 200 million dollars for its INTELSAT (international satellite)

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operations. As explained above, part of the equity was diverted into COMSAT General. The total amount of equity devoted to INTELSAT, therefore, came to 136 million dollars. It is this sum that COMSAT considers as the foundation of its 1964 rate base. As of 1973, in addition to the value of currently useful equipment, COMSAT wishes to add to the rate base 152 million dollars in "return deficiencies": these are sums calculated as representing the difference between the actual rate of return that COMSAT realized between 1964 and 1973 and what COMSAT considers should have been a normal rate of return on its rate base over that period.

13 The Commission's opinion states:

Three separate developments combined to make possible a smaller capital investment in the satellite system: (a) an agreement providing for financial contributions by foreign telecommunications entities was concluded; (b) the Early Bird program, utilizing the technologies of the SYNCOM program, demonstrated the commercial feasibility of a synchronous satellite system in lieu of the more costly medium-altitude system; and (c) whereas Comsat's financing was predicated upon full ownership of the U.S. earth stations, joint ownership of earth station facilities with other U.S. international carriers reduced Comsat's capital requirements.

J.A. 40-41; 56 *FCC2d at 1140-41*.

[**15] The question of return deficiencies will be considered in the next subsection. Turning our attention to the 136 million dollars in the original rate base, we observe that the Commission disallowed a 25 million dollar item in the account called "sustaining capital." (J.A. 85; 56 *FCC2d at 1185*). The principal component of this account, which included some reserve for depreciation as well, was a contingency fund set aside from operating capital, out of which COMSAT, as a self-insurer, planned to provide funds in case of launch failure or similar catastrophe. By 1973, the only remaining item of capital left in the "sustaining capital" account was this catastrophe reserve.

(2) The Commission found that COMSAT had inadequately explained why a line of credit could not have been established to provide the requisite financial security for this contingency. (J.A. 42; 56 *FCC2d at 1142*). Indeed, COMSAT had been issued a line of credit

in 1964 (J.A. 58; 56 *FCC2d at 1158*). Also, the Commission found that it was unrealistic for COMSAT to have presumed that no other funding would be available to it in the event of catastrophe. Even if COMSAT could not [**16] feasibly go into the general debt market at the early stages of its corporate career, it could have sought additional financing in the nature of debt from those with the most serious interest in the financial stability of the company: the shareholders, half of whom were common carriers. One possible plan for such financing is discussed in the Commission's opinion. *Id.* Perhaps most realistic, especially considering COMSAT's continual insistence that it had a crucial governmental mandate (though this was something short of a guarantee), is the potential for COMSAT to have sought an appropriation from the federal government in the rare circumstance of severe technological failure. Finally, the Commission did allow other expenditures to minimize the risk of launch failure and its deleterious impact on COMSAT, and the Commission allowed these to be recouped. (J.A. 42-43; 56 *FCC2d at 1142-43*). We hold that there is substantial evidence to uphold the Commission's decision not to include this 25 million dollars as "sustaining capital" in COMSAT's 1973 rate base.

The discussion of sustaining capital introduces the essential difference between the method of rate-base calculation [**17] suggested by COMSAT, and that adopted by the Commission. The Commission measures a public utility's rate base as "the net book cost of plant service, that is, the total value of utility plant devoted to public service, less accrued depreciation." (J.A. 19; 56 *FCC2d* [*890] *at 1119*). The FCC summarized its rationale for employing this method as follows:

It has been concluded that by recognition in the rate base of deferred start-up costs, R&D and failed satellites and launches in addition to property "used and useful" in providing service, Comsat's rate base could fairly be regarded as conventional. We believe this choice to be in furtherance of recognized regulatory principles; it maintains for the benefit of the public a sense of consistency with other monopoly utility operations providing needed public services. We thus determined not to give rate base treatment to the incorporeal and hypothetical

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claimed assets which, as proposed, constituted approximately one-half of Comsat's rate base. Rather, in a manner again reflecting established regulatory principles, we determined that to the extent the record justified recognition of elements of risk associated with [**18] such items, they should be melded into the determination of Comsat's rate of return allowance.

(J.A. 84; 56 FCC2d at 1184).

By contrast, COMSAT claims that its rate base should follow the "prudent investment" theory; that is the term given to the method proposed by the opinion of Justice Brandeis "dissenting from opinion (of the majority)" in *Southwestern Bell Telephone Co. v. Public Service Commission*, 262 U.S. 276, 290, 43 S. Ct. 544, 547, 67 L. Ed. 981 (1923):

The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. Upon the capital so invested the Federal Constitution guarantees to the utility the opportunity to earn a fair return. (footnote: Except that rates may, in no event, be prohibitive, exorbitant, or unduly burdensome to the public. . . .) Thus, it sets the limit to the power of the State to regulate rates. The Constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or of any of them.

The motivation for Justice Brandeis' opposition to the rate base methodology [**19] of reproduction cost, or "trended historical cost" approved by the majority in *Southwestern Bell*, was the imprecision of that calculation. By using capital embarked on the enterprise, Justice Brandeis hoped to avoid the variability inherent in estimating such cost elements. "The rate base would be ascertained as a fact, not determined as matter of opinion. It would not fluctuate with the market price of labor, or materials, or money." 262 U.S. at 306-307, 43 S. Ct. at 553. The reliance of earlier cases on other methods was

to be explained by the fact that before the growth of public commission regulation, it had not always been easily determinable how much capital had been invested in any given company. 262 U.S. 276 at 309, 43 S. Ct. 544, 67 L. Ed. 981.

When understood in its context, therefore, Justice Brandeis' opinion advocating his dissenting theory might not have objected to the use of book cost less depreciation as the science of accounting has since standardized the various permissible methods of calculating depreciation.

Most important of all in this methodology debate, however, is the fact that the "prudent investment" approach has Never been [**20] adopted by the Supreme Court as the sole method of rate base determination. *Southwestern Bell*, itself, approved the application of a replacement cost approach. While Justice Brandeis and Holmes concurred in the result, which found the rate of return to be non-compensatory under the circumstances of that case, their opinion was a minority one and was explicitly labeled a dissent from the majority's reasoning.

The position that has been taken by the Supreme Court since at least 1944, and reiterated on several subsequent occasions, is that the widest latitude is to be permitted public regulatory commissions in their determination of a rate base. The Court has recognized that any of a large number of rate base theories are acceptable, and requires only that the chosen theory be consistently applied, and result in a reasonable [*891] rate of return. The leading case is *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 64 S. Ct. 281, 88 L. Ed. 333 (1944). "The Commission, Beginning with book cost, made certain adjustments not necessary to relate here and found the 'actual legitimate cost' of the plant in interstate service to be (a certain sum). It Deducted accrued depletion [**21] and depreciation And it added (another sum) for future net capital additions" 320 U.S. at 596, 64 S. Ct. at 284-85 (emphasis added). The described method of rate base determination is largely analogous to the one used by the FCC in the present case.

(3) In *Hope*, "(t)he Circuit Court of Appeals set aside the order of the Commission for the following reasons. . . . It held that the rate base should reflect the 'present fair value' of the property, that the Commission in determining the 'value' should have considered reproduction cost and trended original cost, and that 'actual legitimate cost' (prudent investment) was not the

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proper measure of "fair value" where price levels had changed since the investment." *320 U.S. at 599-600, 64 S. Ct. at 286.* ¹⁴ It was this reversal that was set aside by the Supreme Court. The Court held that the public regulatory commission "was not bound to the use of any single formula or combination of formula(s)" in setting a rate base. *320 U.S. at 602, 64 S. Ct. at 287.* The determining principle for valuating rate-base schemes announced in *Hope* is that:

14 The Court seems to be using the term "prudent investment" in a different sense than it was used by Justice Brandeis in *Southwestern Bell*, but the outcome reached by the Supreme Court in reversing the Court of Appeals' substitution of its own rate base theory for that of the Commission did not turn on the precise theory advanced by either the Commission or the Court of Appeals.

[**22]

Under the statutory standard of "just and reasonable" it is the result reached not the method employed which is controlling. . . . It is not theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important.

320 U.S. at 602, 64 S. Ct. at 287-88. The Commission's choice in this case of a book-value less depreciation method (the same method, in basic terms, that was approved in *Hope*) cannot be upset.

In 1968, the Court again embraced this principle of wide choice. *In the Permian Basin Area Rate Cases, 390 U.S. 747, 767, 88 S. Ct. 1344, 20 L. Ed. 2d 312 (1968),* the Court cited *Hope* with approval, and then went on to emphasize that there was a "zone of reasonableness" within which any rate determined by a regulatory commission could not be set aside. ¹⁵ *Permian Basin* did introduce greater detail into the obligations of a reviewing court, but none of these in any way compromised the general rule that a wide variety of rate-base determinations [**23] (including the one at issue in *Hope* and in this case) were permissible. The

Court held:

15 The Court's "zone of reasonableness" test originated in an earlier case, *FPC v. Natural Gas Pipeline Co., 315 U.S. 575, 585, 62 S. Ct. 736, 86 L. Ed. 1037 (1942).*

It follows that the responsibilities of a reviewing court are essentially three. First, it must determine whether the Commission's order, viewed in light of the relevant facts and of the Commission's broad regulatory duties, abused or exceeded its authority. Second, the court must examine the manner in which the Commission has employed the methods of regulation which it has itself selected, and must decide whether each of the order's essential elements is supported by substantial evidence. Third, the court must determine whether the order may reasonably be expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant [**24] [*892] public interests, both existing and foreseeable.

390 U.S. at 792, 88 S. Ct. at 1373.

The point to be stressed here is that the Supreme Court leaves entirely up to the Commission the method of regulation to be selected. ¹⁶

16 Each of these three aspects of review will be applied to the Commission's COMSAT decision. First, there is no dispute that the Commission was statutorily empowered to pass upon the reasonableness of COMSAT's charges. It has also ordered that certain capital items be amortized out of the rate base, and has applied a hypothetical level of debt to the capital structure, but both of these decisions were only in the context of deciding upon the proposed rates. No abuse of authority can fairly be alleged on this record. Second, the elements of the regulation method

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employed by the Commission will be carefully scrutinized. The Commission set out to estimate a rate base by the book-cost-less-depreciation method. Several aspects of that determination are scrutinized in the following sub-section, p. -- - of 198 U.S.App.D.C., p. 892 of 611 F.2d, *Infra*. As for the rate of return to be applied to that rate base, whether there was substantial evidence for the Commission's decision will be addressed in the next main section, p. -- -, p. 897 of 611 F.2d, *Infra*. Finally, the overall impact of the rate to be permitted was given serious consideration and the adequacy of its determination will be the subject of the final section, p. -- -, p. 909 of 611 F.2d, *Infra*.

[**25] Permian Basin affords no suggestion whatsoever that the choice of rate-base methodology available to a regulatory commission is restricted to the "capital embarked in the enterprise" or "prudent investment" standard. Nor has subsequent decision law from the Supreme Court narrowed a Commission's freedom in that regard. On the contrary, the Hope standard has been explicitly reiterated. In *FPC v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 466, 93 S. Ct. 1723, 36 L. Ed. 2d 426 (1973), the Court held that "the broad discretion of the Commission delineated in *Hope Natural Gas* " would apply fully, unless there were evidence in the legislative history of a contrary Congressional intention. Most recently, the Court has stated "(T)here is no single cost-recovering rate, but a zone of reasonableness: "Statutory reasonableness is an abstract quality represented by an area rather than a pinpoint. It allows a substantial spread between what is unreasonable because too low and what is unreasonable because too high." *Montana-Dakota Util. Co. v. Northwestern Pub. Serv. Co.*, 341 U.S. 246, 251 (71 S. Ct. 692, 695, 95 L. Ed. 912) (1951)." *FPC v. Conway Corp.*, 426 U.S. 271, 278, 96 S. Ct. 1999, 2004, 48 L. Ed. 2d 626 (1976). [**26]

We therefore affirm the choice of the rate-based determination method adopted by the Commission. Three particular objections to the composition of that rate-base are raised: that the Commission erred (1) in not including a fund for "return deficiencies" the amount by which previous earnings had fallen short of COMSAT's concept of the reasonable rate to which it considered itself to be entitled; (2) in its choice of interest rate, in applying the "interest during construction" method of compensating

for certain start-up costs; and (3) in requiring the amortization of laboratory investments out of the rate base over the next five years.

B. Specific Inclusions

1. Return Deficiencies

In the case-law development of the reasonable rate of return concept, a great variety of methodologies have been allowed by courts. This has been in keeping with the Supreme Court's governing rule established in *Hope Natural Gas* as detailed above. However, one proposal for rate-base inclusion has met with almost uniform rejection across more than half a century of Supreme Court precedent, and that is the notion that the losses of a utility sustained in previous years must be capitalized into a rate base [**27] so that the payments of utility users in future years can help alleviate the earlier deficiencies.

In arguing for its "return deficiencies" concept, COMSAT has placed great reliance on the wisdom of *Justice Brandeis, in Galveston Electric Co. v. Galveston*, 258 U.S. 388, 395, 42 S. Ct. 351, 66 L. Ed. 678 (1922). It is an appropriate starting place, accordingly, to refer to the opinion for the Court [*893] of Mr. Justice Brandeis on the question of capitalizing past losses:

The fact that a utility may reach financial success only in time or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether the rate is confiscatory. A company which has failed to secure from year to year sufficient earnings to keep the investment unimpaired and to pay a fair return, whether its failure was the result of imprudence in engaging in the enterprise, or of errors in management, or of omission to exact proper prices for its output, cannot erect out of past deficits a legal basis for holding confiscatory for the future, rates which would, [**28] on the basis of present reproduction value, otherwise be compensatory.

258 U.S. at 395, 42 S. Ct. at 354. ¹⁷ The Southwestern Bell dissent of Mr. Justice Brandeis, on which COMSAT premises its claim that a rate base consists of "capital

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embarked upon an enterprise," was concurred in by Mr. Justice Holmes. However, Justice Holmes was also quite clear in his belief, expressed for the *Court in San Diego Land & Town Co. v. Jasper*, 189 U.S. 439, 23 S. Ct. 571, 47 L. Ed. 892 (1903), that "if a plant is built . . . for a larger area than it finds itself able to supply, or . . . if it does not, as yet, have the customers contemplated, neither justice nor the Constitution requires that, say, two thirds of the contemplated number should pay a full return." 189 U.S. at 446-47, 23 S. Ct. at 574. Whatever their ideas on a proper rate base, both of these jurists were unequivocal in their rejection of the capitalization of past deficiencies.

17 To be entirely precise, we must note that Justice Brandeis used the term "confiscatory" in a sense different from the meaning "not just and reasonable." Although *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 585, 62 S. Ct. 736, 743, 86 L. Ed. 1037 (1942) unequivocally ruled that "by long standing usage in the field of rate regulation, the 'lowest reasonable rate' is one which is not confiscatory in the constitutional sense (citing prior Supreme Court cases)," Justice Brandeis commented in his Southwestern Bell dissent that the "margin between a reasonable rate and a merely compensatory rate" should be preserved. 262 U.S. at 296, 43 S. Ct. at 549. However, as the logic of Mr. Justice Brandeis' quoted statement makes clear, he cannot be interpreted to hold that capitalization of past losses was required to make a rate reasonable, while not required to make the rate compensatory. His criticism clearly ran to including previous losses in the capital structure no matter what the standard.

[**29] The two foregoing authorities were relied upon in what has become, perhaps, the clearest statement of the Supreme Court's refusal to require that previous losses be capitalized, *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 62 S. Ct. 736, 86 L. Ed. 1037 (1942):

But regulation does not insure that the business shall produce net revenues, nor does the Constitution require that the losses of the business in one year shall be restored from future earnings by the device of capitalizing the losses and adding them to the rate base on which a

fair return and depreciation allowance is to be earned. . . . The deficiency may not be thus added to the rate base, for the obvious reason that the hazard that the property will not earn a profit remains on the company in the case of a regulated, as well as an unregulated, business.

315 U.S. at 590, 62 S. Ct. at 745. It is important to observe that the foregoing statement was in the context of the Court's holding that excess capacity might be defended as part of the rate base as "a part of the utility's equipment used and useful in the regulated business When so included, the utility gets its return [**30] . . . provided the business is capable of earning it." 315 U.S. at 590, 62 S. Ct. at 745. That holding is directly applicable to the COMSAT situation. COMSAT makes claim to "sustaining capital" to be included in its rate base. That is principally constituted by the reserve for launch failures and other catastrophes. It may be analogized to the excess capacity in *Natural Gas Pipeline*; both are investments deemed necessary at the start but not actually put into use. [*894] Without deciding the question, we can assume for present purposes that the sustaining capital was "used and useful in the regulated business" in some sense. Where the return on the rate base including such an item as sustaining capital is alleged to be deficient, however, the clear holding of *Natural Gas Pipeline* is that the amount of the deficiency may not be capitalized into the rate base for future years. To do so would unfairly privilege the ratepayers of previous years at the expense of the ratepayers of future years. One or the other must bear the loss, and in the mandate that rates be reasonable there is no justification for shifting that burden.

The fairness of not permitting the capitalization [**31] of previous earnings shortfalls is further emphasized by the fact that COMSAT in determining its rate base and as special items for recoupment was allowed liberal expense allowances for many of the factors that contributed to the overall earnings deficiency, including interest during construction, satellite incentive payments, depreciation, and amortization. (J.A. 74; 56 *FCC2d* at 1174). In all, \$ 91,596,300 of the claimed \$ 91,605,000 losses were allowed. *Id.* at 75; 1175. Compare *FPC v. Hope Natural Gas Co.*, 320 U.S. at 591 at 598-99, 64 S. Ct. 281, 88 L. Ed. 333 .

(4) In recent years, the Supreme Court has not

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retreated from its opposition to any requirement that past losses be capitalized. See, e. g., *FPC v. Tennessee Gas Transmission Co.*, 371 U.S. 145, 152, 83 S. Ct. 211, 9 L. Ed. 2d 199 (1962). And this court has explicitly endorsed that view as settled law.¹⁸ See, e. g., *Payne v. Washington Metropolitan Area Transit Commission*, 134 U.S.App.D.C. 321, 330 & n. 39, 415 F.2d 901, 910 & n. 39. We reaffirm that principle today.¹⁹

18 At oral argument, counsel for COMSAT suggested that there was support for the "capital embarked upon the enterprise" theory in the concurring and dissenting opinion in *Democratic Central Committee of D.C. v. WMAT Comm'n*, 158 U.S.App.D.C. 7, 485 F.2d 786 (1973), Cert. denied, 415 U.S. 935, 94 S. Ct. 1451, 39 L. Ed. 2d 493 (1974). However, neither the majority nor separate opinions in that case required the regulatory commission to follow the "capital embarked upon the enterprise" method of rate base evaluation. The transit commission had not lowered fares to reflect the appreciation in real property owned by the Commission. This decision was set aside by the majority in light of special "equities" that argued for passing along the increase in value in the form of lower fares. The separate opinion (per MacKinnon, J.) would have upheld the Commission's choice of consistent accounting methodology which took account of neither exceptional appreciation nor depreciation in real estate values.

This was not because of a preference perceived by the concurring and dissenting opinion for one method of accounting over another, but in response to "another very powerful judicial doctrine that of deference to agency adherence to rules promulgated under statutory authority unless Arbitrary and capricious." 158 U.S.App.D.C. at 65, 485 F.2d at 844. The Commission was free to choose the accounting method imposed by the majority in *Democratic Central Committee* as an original matter. The concurring and dissenting opinion stated that the Commission "would undoubtedly be upheld had the agency in fact adopted" that method. *Id.* Hence, nothing in the separate opinion in *Democratic Central Committee* can be taken to favor the capital-embarked-upon-the-enterprise over the present fair value approach. Indeed, the

concurring and dissenting opinion only reinforces the position taken here: that Hope Natural Gas permits any of a wide variety of rate base methods to be employed, and the regulatory agency's choice among methods should be upheld unless arbitrary and capricious.

[**32]

19 Where the rates that a regulated company can charge have for some time been under strictures set by an administrative agency, the case for "return deficiencies" could be different. The fact that a reasonable rate of return was not earned might then be explainable by the Commission's miscalculation, and the company, unable to have conducted its affairs in any manner different than it did, might be entitled to recover its losses. That is not this case, however, and nothing we hold today is intended to prejudge that question. COMSAT is before this court challenging the first administrative review of its rates. While it was admonished by the Commission to keep its rates competitive to other means of international telecommunication, the fact that it did so was explainable simply in terms of competitive economics rather than deference to the Commission's order. *Inquiry Into Policy To Be Followed in Future Licensing of Facilities for Overseas Communications*, 30 FCC2d 571, 574 (1971). The steps taken by COMSAT to lower its charges as technological achievements were realized could also be traceable to its understanding of its statutory mandate; but the timing of those decisions, and the amount of the cut in rates, were entirely matters of managerial decision. Nor is a case made out on any of the evidence in the record before us that COMSAT relied on being able eventually to capitalize its past losses. Such reliance would strain credulity in any event: it would present a case where a company had the means to avoid present loss and yet chose not to employ them in the hope (for which no formal assurance of any kind had been obtained) that all would eventually be recompensed.

What happened in this case was simply that the early years of COMSAT's development entailed less profit than it was able to generate upon reaching maturity. That is an entirely expectable business life story, except for the fact

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that COMSAT now claims a right to be compensated for the years of less than maximum profitability.

[**33] [*895] 2. Interest During Construction

Several methods are available to take account of the costs incurred by a regulated industry during its start-up period. The most common alternatives are either to include the plant under construction in the rate base even before it is completed,²⁰ or to keep account of the interest payable on the funds tied up in construction, and capitalize that account at the end of construction.²¹ COMSAT proposed a third approach involving a current expensing of interest, inclusion of plant under construction in the rate base, and the capitalization of the interest account; while recognizing COMSAT's more complicated proposal as theoretically acceptable, the Commission chose not to follow it. (J.A. 33; *56 FCC2d at 1133*). Instead, it decided on the method of capitalizing interest during construction at the time the new plant was brought into service. This choice was entirely proper for the Commission to make and is not challenged by COMSAT.

²⁰ See, e. g., *Goodman v. Public Serv. Comm'n*, 162 U.S.App.D.C. 74, 80, 497 F.2d 661, 667 (1974).

[**34]

²¹ See, e. g., *New Eng. Tel. & Tel. Co. v. Department of Pub. Util.*, 360 Mass. 443, 454, 275 N.E.2d 493, 501 (1971).

It is objected, however, that the Commission did not correctly apply the method it chose. The advantage of the interest during construction method is that by capitalizing such an account, the future rate-payers will be obliged to subsidize the construction of plant that benefits them; and present rate-payers are not burdened with that cost.²² The question arises, however, as to what interest rate should be used in computing the total, compounded sum which will be added to the rate base at the time the new plant is ready.

²² Under the first alternative (capitalizing plant under construction into the rate base) present rate-payers would be obliged to contribute to the construction of plant that would not be of immediate benefit. Using "plant under construction" presents no problem with an interest rate, however, since the estimated value of the

plant to be constructed is merely added to the ordinary rate base.

[**35] The theory behind compensating for interest during construction is that the cost of an addition to the existing plant structure includes payments not only for physical materials but for the finance charges of borrowed money as well. The only question is the means by which, in this theoretical framework, the regulated company is assumed to have borrowed the money: by loans from commercial banks, or by floating debt obligations of its own in the bond market. Each method has its advantages, and the Commission is free to exercise its own judgment as to the most realistic assumption for COMSAT.

The most relevant portion of the Commission's holding on this question is as follows:

We are . . . impressed with the argument that the risk associated with these (construction funds) tends to be lower than the investment in plant in service by virtue of Comsat having the benefit of collateral contractual protection from its hardware suppliers. Accordingly, we view the prevailing annual average (a "13-point average") prime interest rate as the most appropriate rate for Comsat's IDC (Interest During Construction) account commencing 1974. Clearly, considering Comsat's minimal business risks . . . the prime rate should invariably exceed the interest rate [*896] on Future issues of Comsat corporate bonds. (footnote in original: We anticipate that Comsat should readily be regarded as a low risk, prime Borrower in the corporate bond markets. See note 117, *Infra*.) We regard application of this prime rate concept as fair to both future authorized users and Comsat alike.

J.A. 36, *56 FCC2d at 1136* (emphasis added). Footnote 117 referred to in the foregoing states:

We are confident that given Comsat's present all equity capital structure and its level of performance it would qualify for AA-rated utility bonds, possibly even AAA. Thus we presume that Comsat's

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actual cost of debt would in fact be lower than that imputed.

J.A. 73, 56 FCC2d at 1173.

From these references, it is unmistakable that the Commission was hypothesizing that COMSAT would go to the bond market to raise the funds needed for construction of more plant. The reference to the prime rate in the first quotation indicates that COMSAT would have to pay in the bond market. The immediately following sentence stating the Commission's belief that "the prime rate should [*37] invariably exceed the interest rate on future issues of Comsat corporate bonds" would be meaningless if the Commission were assuming that COMSAT was to raise funds by borrowing from lending institutions. There was no discussion in the Commission's opinion of COMSAT's credit-worthiness with lending institutions. Both footnotes confirm that COMSAT's qualifications as a borrower in the Bond market were at issue. The prime rate was serving simply as a reference point.

The difficulty that has arisen as a result of this approach is that the Commission's prediction about the future prime rate has proven inaccurate. COMSAT's brief to this court states the matter most clearly:

The Commission's justification for requiring Comsat to use the prime rate is simply wrong. The prime interest rate is now 7.25%; during 1975 the yield on new issues of Aaa utility bonds ranged from 8.97% To 9.68%; and the Commission elsewhere in its Decision finds that Comsat's cost of debt is 10.2%. Thus, the prime interest rate does not exceed even the interest rate on Aaa utility bonds and certainly could not "invariably" exceed the interest rate on Comsat corporate bonds. (Aaa is a rating by Moody's that corresponds [*38] to Standard and Poor's AAA).

Brief of Petitioner at 39 (footnote omitted).

(5, 6) The Commission's response to this miscalculation has been to attempt to justify the choice of the prime rate in its own right, rather than as a ceiling estimate of COMSAT's future debt service cost. The

Commission offers no response to the error it made in predicting the future relationship of the prime rate vis-a-vis the rate at which high grade utility bonds would be issued. Instead it asserted that such error was harmless in light of the Commission's available alternative reliance on the theory that COMSAT would borrow from financial institutions rather than in the bond market. See Brief of Respondent at 41, n. 65. But that is not an adequate response. It is the Commission's own rationale for its decision, not the justification posited by appellate counsel, that must control our consideration. *Securities and Exchange Commission v. Chenery Corp.*, 318 U.S. 80, 95, 63 S. Ct. 454, 87 L. Ed. 626 (1943). Nor is this merely a formalistic insistence. The Commission has given attention to COMSAT's ability to borrow in the debt market; there is no indication that it has given attention [*39] to COMSAT's ability to borrow from lending institutions. If it gave attention to the latter matter, it might determine that COMSAT did not qualify for the prime rate, or might uncover a wealth of other information potentially applicable to COMSAT's commercial borrowing capability. We cannot extrapolate from the Commission's finding that COMSAT could float high-rated bonds to the conclusion that the record supports the conclusion that COMSAT could borrow freely at the prime rate.

Accordingly, we remand the question of interest during construction to the Commission. The Commission must first determine [*897] what the most realistic borrowing assumption for COMSAT was. It might reassess its implicit decision on this record that COMSAT would go to the bond market rather than to commercial banks or institutional lenders. If it decides that the bond market is appropriate, it would have to apply the figure reached elsewhere in the opinion as to what interest COMSAT bonds would have to bear. Reference to corporate bond yields in general is not adequate when the Commission has already estimated the likely cost to COMSAT of issuing its own bonds. If, however, the Commission decides that [*40] the lending institution market is appropriate, then it must base its conclusion concerning the interest COMSAT would have to pay on record evidence specifically directed to that issue.

3. Laboratory Costs

In establishing the communications satellite system pursuant to the congressional mandate, COMSAT made a

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rather sizable investment in laboratory plant and equipment. In 1973, over 16 million dollars in the claimed rate base was accounted for by laboratories. This was in keeping with the explicit instruction of the Act: "Included in the activities authorized to the corporation for accomplishment of the purposes indicated . . . are, among others not specifically named . . . to conduct or contract for research and development related to its mission." 47 U.S.C. § 735(b)(1) (1970), 76 Stat. 425 (Aug. 31, 1962).

The Commission has ordered COMSAT to amortize its laboratory investment over the next five years. Costs of operating the laboratories will still be permitted as operating expenses in each year, but the intent of the Commission's order is to remove the investment in laboratories as a permanent rate-base fixture upon which a return would be earned each year.

[**41] As a reason for requiring the phase-out of laboratory capital, the Commission took note of the fact that "(n)either The Bell Telephone Laboratories nor the R&D laboratories of any other carrier are given rate base treatment, but expenses are allowed." (J.A. 25; 56 FCC2d at 1125). COMSAT vigorously contests this, citing the Commission's decision in *American Telephone & Telegraph*, 9 FCC2d 30, 39 (1967), wherein Bell Telephone Laboratories, Inc., is included in the list of "subsidiaries not consolidated" in the statement of capital stocks owned by AT&T. However that dispute may be resolved, the Commission does not base its phase-out decision upon a comparison with AT&T.

Rather, the Commission's order to remove laboratories from the rate base "does not rest on any assessment of the value of Comsat's R&D efforts to the INTELSAT system, but it does lay to rest problems we have noticed in the record, namely that R&D has been allocated to the international ratepayer, when it is clear that the fruits of the R&D are applicable to satellite technology generally." (J.A. 25; 56 FCC2d at 1125). At the start of COMSAT's development, international satellite [**42] operations were its only concern, so at that time there was no difficulty in including laboratories in the rate base. Whatever the laboratories produced redounded to the benefit of the jurisdictional enterprise. Now that COMSAT General and foreign subscribers as well as COMSAT's INTELSAT operations benefit from the laboratory research, it cannot be said that all the benefits go to INTELSAT. Unwilling to attempt an

appropriate estimated allocation of the laboratory plant, the FCC has chosen to remove it entirely.

(7) In light of the explicit statutory authorization for research and development, and the necessary reliance by COMSAT on innovative technology, it is not inappropriate that COMSAT maintain laboratory plant and equipment in its rate base. It is an inadequate response to refuse inclusion of so expectable an element of plant and equipment merely because of accounting difficulty in estimating a reasonable allocation formula. The Commission has often had to develop such separation estimates where communications companies were involved in both intrastate and interstate operations. See, e. g., *American Telephone & [**898] Telegraph Co.*, 9 FCC2d 30, 88 (1967) [**43] (discussing separation formulae developed in 1947, 1952, 1956, 1962, 1965, and for 1967).

These two factors, COMSAT's statutory justification and the Commission's demonstrated expertise, combine to defeat the Commission's weak suggestion that determining a proper allocation would be administratively burdensome. The FCC's staff did not object to allocating the cost of COMSAT's laboratory plant between the various beneficiaries of its activities on the grounds some of the recipients were not involved in this proceeding; and they have made no suggestion that an appropriate allocation formula could not be developed. As we have held in *American Smelting & Refining Co. v. FPC*, 161 U.S.App.D.C. 6, 24, 494 F.2d 925, 943, Cert. denied, 419 U.S. 882, 95 S. Ct. 148, 42 L. Ed. 2d 122 (1974), and recently reaffirmed in *City of Willcox v. FPC* (June 30, 1977), 185 U.S.App.D.C. 288 at 306, 567 F.2d 394, at 413, "The mere fact that the solution is complicated cannot justify the Commission in refusing to provide just and reasonable . . . procedures."

On remand, the Commission will be required to develop an appropriate allocation formula, or base its decision [**44] to require the rapid amortization of laboratory investments on a rationale, supported by substantial evidence, other than its own inconvenience.

III. RATE OF RETURN

The Commission's conclusion that a 10.8% Rate of return on capital, with the possibility of an 11.8% Return based on economies achieved by COMSAT, was the product of two separate decisions, each of which is challenged on appeal. The 10.8% Figure was the

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weighted average of a 10.2% Cost of debt and an 11.3% Rate of return on equity (J.A. 73; 56 FCC2d 1173). The weighting formula was 45% Debt; 55% Equity: this was a hypothetical capital structure that the Commission felt COMSAT was able to sustain. In light of the fact that COMSAT was actually 100% Equity financed, the permissibility of that weighting formula is challenged. Also, the 11.3% Figure for equity is objected to; it is COMSAT's position that a minimum of 15% Was necessary to afford a just and reasonable rate of return. (J.A. 46-57; 56 FCC2d 1146-47).²³ We will first consider COMSAT's claim that the 11.3% Rate of return on equity is inadequate.

23 No objection has been raised to the 10.2% Estimate of COMSAT's debt cost, if it were to obtain debt financing.

[**45] A. The Equity Rate of Return

Several different methods of computation were presented in the evidence before the Commission. Discounted cash flow, an Arthur Anderson study of four public utilities' authorized rates of return, a "modern" portfolio theory, and a capital asset pricing model were all presented to the Commission, discussed in the opinion, and dismissed as unreliable. (J.A. 63-70; 56 FCC2d 1163-1170). The method that was accepted was described by the Commission as follows:

The methodology we employ is to determine as riskless a return on invested capital as we can find, and add to it a risk premium reflecting the risks found present in Comsat's fulfillment of its statutory mission. We also find it useful, as a yardstick to compare Comsat's risks and cost of capital to AT&T. On these bases we are of the opinion that the return we are allowing Comsat on its INTELSAT rate base is adequate and fair and that such return, when considered together with the separate and discrete factors underlying Comsat's capital attraction capability for its non-INTELSAT undertakings, will permit investors to more intelligently evaluate Comsat's stock as an investment risk. [**46]

(J.A. 63; 56 FCC2d at 1163).

COMSAT has no quarrel with the rate of return evaluation theory employed by the Commission. The Commission's opinion comments, "It is interesting to note that in its Summary filed May 18, 1975 Comsat has almost exclusively focused on, to the exclusion [*899] of other empirical evidence it has sponsored, this type of approach." Id., n. 102. After the Supreme Court's *Hope Natural Gas* holding, as re-affirmed in *Permian Basin Area Rate Cases*, supra, it would have been very difficult to mount a successful argument that the FCC was obliged to use some alternative approach.²⁴

24 Measuring the return to an equity holder by reference to the return on an investment with corresponding risk was a method explicitly approved by the *Supreme Court in FPC v. Hope Nat'l Gas Co.*, 320 U.S. 591, 603, 64 S. Ct. 281, 88 L. Ed. 333 (1944).

For years prior to 1973, the Commission estimated a riskless rate of return from long-term U.S. Government [**47] bonds and added to it a risk premium in excess of the risk premium estimated for AT&T. As of 1973, however, the Commission found that COMSAT could no longer be entitled to a higher risk premium than AT&T, and it is here that the crux of COMSAT's appeal on this point lies. The Commission's logic proceeds as follows. (1) In 1972, AT&T's cost of common equity was 10.5%, and "10.5% Was a valid assessment into the foreseeable future." (2) In 1973, U.S. Treasury Bonds were paying 6.5%. (3) This implied that AT&T had a risk premium of 4% In 1973. (4) "By 1973, the year Comsat obtained maturity and the year we have selected for determination of Comsat's allowable rate base, we find that Comsat's risks had declined considerably, and the record will no longer support a finding that Comsat was significantly riskier than AT&T. Based on our judgment and analysis of Comsat's 1973 risks from the record, independently and by way of comparison to 1964, we estimate a risk premium of 4%." (5) United States Treasury Bond yields rose to an average of 7.3% In 1975. (6) Thus, "Comsat's current cost of equity is 11.3%." (J.A. 72-73; 56 FCC2d 1172-1173).

Petitioner's most strenuous objection [**48] can be focused upon the one statement in sentence number 4, above, that "the record will no longer support a finding that Comsat was significantly riskier than AT&T." There is a separate section of the FCC's opinion just dealing with the comparative risks of COMSAT and AT&T,

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which also concludes, "Comsat can no longer be regarded as more risky than AT&T with regard to technical and operational problems leading to service outages and revenue loss." (J.A. 62; 56 FCC2d 1162, footnote omitted). We will shortly deal with this most basic challenge.

First, however, it is necessary to consider the findings of the Commission on the elements of COMSAT's risk. COMSAT has impugned the validity of several of these component findings. As for those risk elements not explicitly addressed, (E. g., launch failures, COMSAT's cash) our conclusion, after reviewing the record evidence, is that none conclusively demonstrates that COMSAT is less risky than AT&T, but that each adequately resists the conclusion that COMSAT is More risky. Thus, the question turns upon the factors about to be addressed.

(1) Technical risk.

COMSAT emphasizes the novelty of its technology, and the Commission responds [**49] with a catalogue of scientific precedent in the communications satellite field. Prior to the formation of COMSAT, practically all the risk in developing the early technology was absorbed by the government. COMSAT was thus the beneficiary at no cost to it of substantial research and development that was done at the expense of billions of dollars by the United States. Although COMSAT renews its objections in the brief as to the degree of departure from prior technology that the synchronous satellite concept represented, we find that the Commission's treatment of the question amply satisfies the substantial evidence standard, particularly in this area of complicated scientific mechanics. (See J.A. 48-49; 56 FCC2d 1148-49).

(2) Business risk.

COMSAT alleged that there was cause for concern that overall demand for international telecommunications would not remain high, or that COMSAT's market share [*900] among other modes of commercial telecommunication would fall even if general demand did not. We find more than adequate the record evidence before the Commission regarding estimated overall demand. As for market share, the Commission relied on its own authority to [**50] "allocate circuits and facilities between cable and satellite" to guarantee COMSAT's place, a fair proportion of the available

traffic. (J.A. 53; 56 FCC2d at 1153). COMSAT is correct in suggesting, however, that the Commission overstated its case in relying on the "facility mix allocation decision,"²⁵ which stated, "(W)e will authorize implementation of needed circuit facilities in line with the proposals of the European Administrations looking toward maintenance of reasonable parity between cable and satellite circuits on transatlantic routes."²⁶ That decision does not speak to the critical question of revenues, and, as COMSAT's brief points out, a later "facility mix allocation decision"²⁷ reintroduced all the uncertainty that the prior statement might have alleviated: "Our primary policy objective has been and remains the achievement and efficient utilization of the lowest cost combination of facilities which can satisfy valid traffic needs and service standards, irrespective of technology or supplier."²⁸ Of course, AT&T as an international carrier is subject to precisely the same kinds of overall demand and market share concerns; but AT&T is not solely in [**51] the international telecommunications market, as COMSAT's INTELSAT operations are. Hence, we do find that COMSAT raises a non-trivial objection to this aspect of the Commission's decision, and that COMSAT has more business risk, in this sense, than AT&T.

²⁵ *The Inquiry Into Policy To Be Followed in Future Licensing of Facilities for Overseas Communications*, 30 FCC2d 571 (1971).

²⁶ *Id.* at 574.

²⁷ *The Inquiry Into Policy To Be Followed in Future Licensing of Facilities for Overseas Communications*, FCC Order No. 76-161 (Feb. 27, 1976).

²⁸ *Id.* at P 8.

(3) International risk.

In August of 1964, the United States and twenty other nations entered into a consortium that assured COMSAT's INTELSAT facilities would receive a sustained amount of utilization. The Commission is correct in citing this development as an early risk-reducing factor. However, the 1971 updating of that agreement severely restricted the authority of COMSAT in the international consortium, and also [**52] restricted the potential for diversification by INTELSAT. Professor A. Chayes has noted, "In the Definitive Agreements, concluded after more than two years of negotiations, the United States suffered major rebuffs on almost every element of its opening position. The Intelsat

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consortium was replaced with a formal International Communications Satellite Organization. Comsat was placed under a voting limit of 40% Instead of the 50% It proposed and was (thereby) stripped of its veto. . . . " 29

29 Chayes, "Comsat," 28 Harv.L.Sch.Bull., No. 2, 26, 31 (Winter, 1977).

The Commission's opinion on this point dwells excessively on COMSAT's status under the old, Interim Agreement, and takes note of the Definitive Agreements only to recognize, in passing, that "Comsat's voting strength . . . has declined. . . ." (J.A. 57, 56 *FCC2d 1157*). However, this was not a trivial change.

As compared with AT&T, it must be admitted that COMSAT is subject to a greater degree of risk due to its need to reach agreement [*53] with foreign governments. The Commission found that the "moderate institutional risks in 1964 arising from the necessity of foreign cooperation in the establishment and operation of the global satellite system" "declined" with the signing of the Interim Agreement. (J.A. 57, 56 *FCC2d at 1157*). By the same analysis, it must be admitted that those institutional risks increased, with the substitution of the subsequent Definitive Agreements for the Interim Agreement. We agree with COMSAT that on this point the Commission underestimated [*901] the risk that COMSAT bore relative to AT&T.

(4) Regulatory risk.

COMSAT seeks a higher return because its regulated status subjects its major decisions to administrative review. But COMSAT is unable to distinguish effectively its status from that of any other regulated carrier on risk of this character. Indeed, as the Commission points out, a regulatory mandate that COMSAT prosper may be found in "the Satellite Act, the Communications Act of 1934, as amended, and, generally by the record which details the government's involvement with Comsat's welfare." (J.A. 56, 56 *FCC2d at 1156*). The Congressional declaration of [*54] policy and purpose that serves as preamble to the Satellite Act amply demonstrates that it is a weak argument indeed to characterize COMSAT as the forgotten child of the regulated industry family. 30

30 47 U.S.C. § 701 (1970):

(a) The Congress declares that it is the policy of the United States to establish, in conjunction

and in cooperation with other countries, as expeditiously as practicable a commercial communications satellite system, as part of an improved global communications network, which will be responsive to public needs and national objectives, which will serve the communication needs of the United States and other countries, and which will contribute to world peace and understanding.

(b) The new and expanded telecommunication services are to be made available as promptly as possible and are to be extended to provide global coverage at the earliest practicable date. In effectuating this program, care and attention will be directed toward providing such services to economically less developed countries and areas as well as those more highly developed, toward efficient and economical use of the electromagnetic frequency spectrum, and toward the reflection of the benefits of this new technology in both quality of services and charges for such services.

(c) In order to facilitate this development and to provide for the widest possible participation by private enterprise, United States participation in the global system shall be in the form of a private corporation, subject to appropriate governmental regulation. It is the intent of Congress that all authorized users shall have nondiscriminatory access to the system; that maximum competition be maintained in the provision of equipment and services utilized by the system; that the corporation created under this chapter be so organized and operated as to maintain and strengthen competition in the provision of communications services to the public; and that the activities of the corporation created under this chapter and of the persons or companies participating in the ownership of the corporation shall be consistent with the Federal antitrust laws.

(d) It is not the intent of Congress by this chapter to preclude the use of the communications satellite system for domestic communication services where consistent with the provisions of this chapter nor to preclude the creation of additional communications satellite systems, if required to meet unique governmental needs or if

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otherwise required in the national interest. Pub.L. 87-624, Title I, § 102, Aug. 31, 1962, 76 Stat. 419.

[**55] This brings us to the basis for the Commission's conclusion that, on net, COMSAT's risk is no higher than that of AT&T. The factors discussed above indicate that, despite the Commission's conclusion of no difference, COMSAT does represent a greater risk in those factors. The principal countervailing factor is that COMSAT is 100% Equity-financed. There is no debt in its capital structure. AT&T, on the other hand, had a debt-to-equity ratio of 90.86% In 1973.³¹ It is difficult to overstate the importance of this distinction. The shareholders of AT&T are not the first in line to receive earnings that are not retained; debt service has the first priority. And in case of insolvency, it is the shareholders who again line up last; the debt obligations will be paid first out of whatever assets can be garnered. This difference is not rendered academic by the very great probability that AT&T will remain solvent, or by AT&T's unbroken record of paying dividends, for the size of those dividends will be less, and [*902] the freedom of the company to enter into promising new areas will be restricted by the obligation of debt service. Perhaps the clearest statement of the risk-increasing [**56] effect of debt came from AT&T itself which, in its 1972 rate hearing, made a plea summarized as follows by the Commission:

31 American Tel. & Tel. Co., 1974 Annual Report 35. Outstanding debt totaled 28.37 billion dollars; equity totaled 31.22 billion dollars. We take judicial notice of this publicly filed document and other similar documents of *AT&T and COMSAT. Tampa Electric Co. v. Nashville Coal Co.*, 365 U.S. 320, 332, 81 S. Ct. 623, 5 L. Ed. 2d 580 (1961); *Texas & P.R. Co. v. Pottorff* 291 U.S. 245, 54 S. Ct. 416, 78 L. Ed. 777 (1934).

It is claimed that changes in the capital structure since the Commission decision in Docket No. 16258 (in 1967) alone would call for a substantial increase in Bell's rate of return on equity. The debt ratio has risen from 31-33 percent to above 45 percent, but its equity earnings in the 9 percent range are still no higher than at the

time of the Docket No. 16258 decision.

American Telephone & Telegraph, 38 FCC2d 213, 259 (1972). [**57]

Furthermore, this is not a case of comparing a company with some debt to one with a little more or less; it is a difference in kind between the two capital structures. A company with absolutely no debt is a rare thing, and for a public utility to be without debt is rarer still.

(8) The comparison, therefore, is between an established utility with almost half of its capital structure in debt securities and operating in part in an international milieu, and a newer utility, subject fully to the risks of an international business environment, but with strong assurances of government interest, and in the unique position of owing no debt at all. While disagreeing with a few of the Commission's detailed conclusions, we hold that there was substantial overall evidence to sustain the Commission's decision that, as of 1973, COMSAT did not deserve a risk premium in excess of that afforded AT&T for the purpose of calculating a just and reasonable rate of return.³²

32 COMSAT's argument that a majority of the Commissioners did not concur in the finding that COMSAT was no more risky than AT&T is not supported by the record. Commissioner Reid does state her disagreement with the AT&T comparison, but concludes "Nevertheless, I feel this decision is reasonable and justified by the record before us." (J.A. 88; 56 FCC2d at 1188). Likewise, Commissioner Hooks noted his concurrence with the result, but not with "all aspects of the formula used to reach our conclusion." Commissioner Robinson, while voicing an apt comparison between the complexity of the record in this case and the unfathomable writings of Kant, concludes "I believe our decision is fair to Comsat shareholders and fully sufficient to enable future attraction of capital." (J.A. 92, 56 FCC2d at 1192). In each instance, the important fact is that the Commissioner concurred in the decision reached. If there was disagreement concerning the AT&T comparison, the concurring Commissioners still felt the rate of return was within the "zone of reasonableness" so that

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affording no higher risk premium did Not meet with their disapproval.

[**58] B. The Hypothetical Capital Structure

Even though COMSAT had not issued any debt securities, the Commission postulated that having passed its birth-pain years, COMSAT would by 1973 be able to sustain debt in its capital structure. (J.A. 60, 56 FCC2d at 1160). The Commission was not undertaking to restructure the capital of COMSAT on its own; that was for the COMSAT management to accomplish when it considered such a readjustment appropriate. The Commission's imputing of debt was an admittedly hypothetical construct, for the purpose of determining the allowable rate of return. COMSAT's maintenance of an all equity structure resulted in an inordinately high cost of capital, since the cost of equity is generally higher than the cost of debt, and almost all public utilities carry some debt. Indeed, some public utility commissions have held that it is the obligation of a public utility to offer as much debt as is consistent with the sound finance of the company. See, e. g., *Re New York Telephone Company*, 7 PUR4th 496, 506 (N.Y. Pub. Util. Comm'n 1974). Cf. *AT&T*, 9 FCC2d 30, 52 (1967). Rate-payers are subjected to an excessive burden when the revenues [**59] to be derived from the rates they pay have to be high enough to compensate the cost of a capital structure consisting entirely of equity financing; levering³³ [**903] a capital structure with lower-costing debt relieves some of that burden.³⁴

33 Leverage is the term used in investment circles to describe the comparative ratio of corporate debt to equity and conveys the extent of the advantage, if any, that the equity interest in the corporation possesses in its ability to achieve a profit by receiving a higher rate of return on borrowed capital that the rate of interest it pays on such fares. *Securities & Exchange Commission v. Central-Illinois Securities Corp.*, 338 U.S. 96, 150, n. 49, 69 S. Ct. 1377, 93 L. Ed. 1836 (1949) (" 'Leverage' is the term used to describe the advantage gained by junior interests through the rental of capital at a rate lower than the rate of return which they receive in the use of that borrowed capital"); *Gerdes v. Reynolds*, 28 N.Y.S.2d 622, 655 (Sup.Ct.1941).

34 Ratepayers and equity owners overlap substantially in COMSAT's case because the

formative Act required one half of COMSAT's stock to be held by the common carriers. This does not render the distinction inadequate for evaluating competing rate-making concerns, however.

[**60] (9) The authority of a public utility commission, like the FCC, to assume hypothetical debt for a company derives from its jurisdiction over rates charged by the company, that they be "just and reasonable." The appropriate part of the COMSAT Act providing such power to the FCC is 47 U.S.C. § 721(c) (2):

(T)he Federal Communications Commission, in its administration of the provisions of the Communications Act of 1934, as amended, and as supplemented by this chapter, shall . . . insure that all present and future authorized carriers shall have nondiscriminatory use of, and equitable access to, the communications satellite system and satellite terminal stations under just and reasonable charges

We reject the Commission's allegation, made in its brief to this court, that the proper jurisdictional statutory provision in this rate-making proceeding is 47 U.S.C. § 721(c)(8), which provides:

"721. In order to achieve the objectives and to carry out the purposes of this act . . . (c) the Federal Communications Commission in its administration of the provisions of the Communications Act of 1934, as amended, and as supplemented [**61] by this act, shall (8) authorize the corporation (Comsat) . . . to borrow any moneys . . . upon a finding that such . . . borrowing . . . is compatible with the public interest, convenience, and necessity and is necessary or appropriate for or consistent with carrying out the purposes and objectives of this act by the corporation."

This statute merely directs the Commission to Authorize the borrowing of moneys when a certain showing is made and the managerial decision as to whether the corporation should borrow money remains with COMSAT. However,

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it is well settled in public utility law that it is no interference with this management prerogative for a regulatory commission to impute a hypothetical capital structure, whether or not the regulated company increases its debt; for that is done merely in pursuance of the Commission's legitimate rate-making authority.

One of the clearest statements of this principle is afforded by the *Supreme Court of New Hampshire, in New England Telephone & Telegraph Co. v. State*, 98 N.H. 211, 220, 97 A.2d 213, 220 (1953):

Although the determination of whether bonds or stocks should be issued is for management, the matter of debt [*62] ratio is not exclusively within its province. Debt ratio substantially affects the manner and cost of obtaining new capital. It is therefore an important factor in the rate of return and must necessarily be considered by and come within the authority of the body charged by law with the duty of fixing a just and reasonable rate of return.

The same sentiment has been echoed by the Federal Communications Commission itself in a rate determination opinion:

We do not propose to require RCAC or any other carrier to incur any particular percentage of debt in meeting its capital requirements. However, it appears to us that in fixing a rate of return we must keep in mind the capital structure which a regulated carrier chooses to maintain in order to balance properly the requirements of safety of investment, stability [*904] of dividends, and availability of capital, and an obligation to maintain that rate structure which will, consistent with the foregoing, result in minimum requirements from the rate-paying public.

Re *Western Union Telegraph Co.*, 25 F.C.C. 535, 600-01, 25 PUR3d 385, 464-65 (1958). Many state public utility commissions have also followed this [*63] method of imputing a hypothetical amount of debt. For example, the Idaho Public Utilities Commission has stated:

The function of this commission is regulatory and not managerial. The determination of debt-equity ratios of capital is for management, but when a policy adopted by management results in the payment by subscribers of rates higher than might be required under another policy available to management, then this commission must take note.

Re *Mountain States Telephone & Telegraph Co.*, 6 PUR3d 428, 438 (Idaho Pub. Util. Comm'n 1954). The Public Service Commissions of Louisiana and Wyoming are on record to the same effect. See *Louisiana Public Service Commission v. Southern Bell Telephone & Telegraph Co.*, 14 PUR3d 146, 165 (La.Pub.Serv.Comm'n 1956); Re *Mountain States Telephone & Telegraph Co.*, 14 PUR3d 231, 237 (Wyo. Pub. Serv. Comm'n 1956).

Perhaps the ultimate authority for imputing debt when necessary to protect rate-payers from excessive capital charges is the Supreme Court's statement in *Hope Natural Gas*, that "The rate-making process under the Act, i. e., the fixing of 'just and reasonable' rates, involves a balancing [*64] of the investor and the consumer interests." 320 U.S. at 603, 64 S. Ct. at 288. The equity investor's stake is made less secure as the company's debt rises, but the consumer rate-payer's burden is alleviated. It is these conflicting interests that the Commission is to reconcile.

(10) The FCC cannot be faulted for considering consumer interests in the COMSAT proceeding, and deciding that COMSAT could reasonably have levered its capital structure with debt. In so doing, it not only was true to its statutory obligation, but was also following a practice quite commonplace among public commissions charged with reviewing and setting reasonable rates for service. The practice of imputing a hypothetical amount of debt has been explicitly approved by the public utility commissions or courts of at least twenty-two states and the District of Columbia. Over the course of the last two decades, the following jurisdictions have hypothetically altered the actual capital structure of a regulated corporation for purposes of setting rates that were more equitable to consumers: Alabama,³⁵ Connecticut,³⁶ Delaware,³⁷ District of Columbia,³⁸ Idaho,³⁹ Illinois,⁴⁰ Louisiana,⁴¹ [*65] Maryland,⁴² Massachusetts,⁴³ Michigan,⁴⁴ Mississippi,⁴⁵ Montana,⁴⁶ [*905]

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Nebraska,⁴⁷ New Hampshire,⁴⁸ New Mexico,⁴⁹ Pennsylvania,⁵⁰ South Dakota,⁵¹ Tennessee,⁵² Texas,⁵³ Utah,⁵⁴ Vermont,⁵⁵ Washington,⁵⁶ and Wyoming.⁵⁷ Minnesota⁵⁸ and California⁵⁹ have expressed some reservation to imputing a hypothetical amount of debt when the regulated company's outstanding debt was "not improper."⁶⁰ But the term "improper" could have referred to the perspective of a rate-payer, in which case those courts would not be in disagreement with the others cited. The Supreme Judicial Court of Massachusetts has most directly addressed the problem of when debt may be imputed, and has on some occasions refused to do so. See, e. g., *Boston Gas Co. v. Department of Public Utilities*, 359 Mass. 292, 269 N.E.2d 248 (1971); *Mystic Valley Gas Co. v. Department of Public Utilities*, 359 Mass. 420, 269 N.E.2d 233 (1971).⁶¹ A reconciliation of that state's case law on this point is offered in *New England Telephone & Telegraph Co. v. Department of Public Utilities*, 360 Mass. 443, 275 N.E.2d 493 (1971). The distinction drawn by the [**66] Supreme Judicial Court between cases where hypothetical debt would be imputed, and where it would not be, was one of degree; where the company's debt structure was already close to what the regulatory commission was proposing for [*906] rate-making purposes, or soon would be, the court held the Commission ought not interfere. The court stated: "It is now clear that in certain circumstances the Department may disregard the actual capital structure of a regulated utility company and attribute to it a hypothetical capital structure for the purpose of rate making. . . ." 275 N.E.2d at 507. In the case before it, however, where the utility had demonstrated it would imminently have a debt structure of 45%, the court ruled that the regulatory commission erred in imputing a debt percentage of 50%. That rationale clearly has no application here, where the regulated company, COMSAT, has a debt ratio of 0%, and the FCC proposes to impute a 45% Debt.

35 Re Southern Bell Tel. & Tel. Co., 4 PUR3d 195 (Ala. Pub. Serv. Comm'n 1954).

36 Re Southern New Eng. Tel. Co., 20 PUR3d 34 (Conn. Pub. Util. Comm'n 1957).

[**67]

37 Re Diamond State Tel. Co., 21 PUR3d 417, 435-6 (Del. Pub. Serv. Comm'n 1958).

38 See *Powell v. Washington Met. Area Transit Comm'n*, 158 U.S.App.D.C. 301, 306 n. 33, 485 F.2d 1080, 1085 n. 33 (1973). See also *Chesapeake & Potomac Tel. Co.*, 6 PUR3d 222

(D.C. Pub. Util. Comm'n 1954).

39 *Petition of Mountain States Tel. & Tel. Co.*, 76 Idaho 474, 284 P.2d 681 (1955). See also *Re Mountain States Tel. & Tel. Co.*, 6 PUR3d 428 (Idaho Pub. Util. Comm'n 1954).

40 *Re Illinois Bell Tel. Co.*, 7 PUR3d 493 (Ill. Comm. Comm'n 1955).

41 *Southern Bell Tel. & Tel. Co. v. Public Serv. Comm'n*, 239 La. 175, 118 So.2d 372 (1960). See also *Pub. Serv. Comm'n v. Southern Bell Tel. & Tel. Co.*, 14 PUR3d 146, 164 (La. Pub. Serv. Comm'n 1956) (45% Debt imputed).

42 *Chesapeake & Potomac Tel. Co. v. Pub. Serv. Comm'n*, 201 Md. 170, 183, 93 A.2d 249, 257 (1952). See also *Re Baltimore Gas & Elec. Co.*, 24 PUR3d 247, 260 (Md. Pub. Serv. Comm'n 1958).

43 *New Eng. Tel. & Tel. Co. v. Department of Pub. Util.*, 360 Mass. 443, 462, 275 N.E.2d 493, 507 (1971); *New Eng. Tel. & Tel. Co. v. Department of Pub. Util.*, 331 Mass. 604, 121 N.E.2d 896 (1954). See also *Re New Eng. Tel. & Tel. Co.*, 22 PUR3d 470, 474 (Mass. Dept. of Pub. Util. 1958):

(W)e have consistently found that since the debt ratio has a profound effect on the appropriate rate of return and therefore on the rates payable by the subscribers, we would be derelict if we did not exercise our own judgment on the question. In the past we have held that the 45 per cent debt ratio was appropriate. In this holding we have been upheld by the Supreme Judicial Court No evidence has been presented in this case which persuades us that the 45 per cent debt rate is not still appropriate.

[**68]

44 *Michigan Bell Tel. Co. v. Pub. Serv. Comm'n*, 332 Mich. 7, 30, 50 N.W.2d 826, 840 (1952). See also *Re Michigan Bell Tel. Co.*, 20 PUR3d 397 (Mich. Pub. Serv. Comm'n 1957).

45 *Southern Bell Tel. & Tel. Co. v. Public Serv. Comm'n*, 237 Miss. 157, 113 So.2d 622 (1959). See also *Re Southern Cen. Bell Tel. Co.* 5 PUR4th 113, 117 (Miss. Pub. Serv. Comm'n 1974) (45% Imputed).

46 *Re Mountain States Tel. & Tel. Co.*, 23 PUR3d 233, 250 (Montana Pub. Serv. Comm'n 1958).

47 *Re Northwestern Bell Tel. Co.*, 97 PUR

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(NS) 394 (Neb. State Ry. Comm'n 1952).

48 *New Eng. Tel. & Tel. Co. v. State*, 98 N.H. 211, 97 A.2d 213 (1953). See also *New Eng. Tel. & Tel. Co.*, 21 PUR3d 195, 200 (N.H. Pub. Util. Comm'n 1957).

49 *State Corp. Comm'n v. Mountain States Tel. & Tel. Co.*, 58 N.M. 260, 270 P.2d 685 (1954).

50 *Lower Paxton Twmsh'p v. Commonwealth*, 13 Pa.Cmwlt. 135, 144-45, 317 A.2d 917, 921-22 (1974). See also *Public Util. Comm'n v. Consolidated Water Co.*, 98 PUR3d 507, 514 (Penn. Pub. Util. Comm'n 1973).

51 *Re Northwestern Bell Tel. Co.*, 20 PUR3d 385 (S.D. Pub. Util. Comm'n 1957).

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52 *Re Southern Bell Tel. & Tel. Co.*, 12 PUR3d 170, 190 (Tenn. Pub. Serv. Comm'n 1956) (45% Debt imputed).

53 *Re Southwestern Bell Tel. Co.*, 2 PUR3d 265 (Houston, Tex., City Council 1953).

54 *Re Mountain States Tel. & Tel. Co.*, 2 PUR3d 75 (Utah Pub. Serv. Comm'n 1953).

55 *Re New Eng. Tel. & Tel. Co.*, 116 Vt. 480, 80 A.2d 671 (1951).

56 *Pacific Northwest Bell Tel. Co. v. Util. & Transp. Comm'n*, 8 PUR3d 16 (Wash. Superior Ct. 1972).

57 *Re Mountain States Tel. & Tel. Co.*, 14 PUR3d 230, 237 (Wyo. Pub. Serv. Comm'n 1956).

58 *Northwestern Bell Tel. Co. v. State*, 299 Minn. 1, 12, 216 N.W.2d 841, 850 (1974) (per Otis, J.):

We have difficulty accepting the concept that in a rate case of this kind the state may collaterally attack the judgment of the company in maintaining its embedded debt at a low figure. We agree with the position of the company that this is a discretionary matter of management which, in the light of soaring interest rates, seems to vindicate the company's decision to keep its debt obligations to a minimum.

59 *Re Pacific Tel. & Tel. Co.*, 23 PUR3d 209 (Cal. Pub. Util. Comm'n 1958).

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60 *Id.* at 223-224.

61 See also *Re Boston Edison Co.*, 99 PUR3d 417, 419 (Mass. Dept. Pub. Util. 1973): "Unless the company's actual capital structure is

demonstrably unreasonable, determinations of fair rate of return must be based on the applicable, as opposed to a hypothetical, capital structure."

Hence, we hold that the Commission acted consistently with settled regulatory law and acted well within its own jurisdiction as the reviewer of rates proposed by COMSAT, when it hypothesized some debt in COMSAT's capital structure. The question next arises whether there was substantial evidence for the Commission's choice of 45% As the level of debt to be assumed.

The Commission based its determination of a 45% Level of imputed debt on comparative evidence from other communication companies and AT&T in particular. The Commission's decision states:

Comsat's peculiar 100% Equity capital structure was noted by Dr. Carleton and, of course by Dr. Brigham who acknowledged that the absence of debt resulted in less risk for Comsat's stockholders. Dr. Brigham also [**71] indicated that the average debt ratio for utilities was 61%. Currently AT&T's debt ratio is approximately 50%. We also take notice from our 1974 compilation of Statistics of Communications Common Carriers that the weighted average (arithmetic mean) ratios of long-term debt to total capital for 87 telephone and 7 telegraph carriers was 49.1% And 40.4% Respectively. On the basis of the foregoing we believe it conservative to impute debt at a 45% Level in our determination of Comsat's 1975 rate of return allowance.

(J.A. 58; 56 FCC2d at 1158) (footnotes omitted). The 1973 Annual Report of AT& T (the "10K" Report on file with the Securities and Exchange Commission) shows that AT&T had a 47.6% Debt ratio.⁶² Hence, the Commission's reference to an approximate debt ratio of 50% Was more generous than accurate; and a proper reference indicates that the Commission's imputation of 45% Debt was even closer to that of AT&T than the Commission claimed.

⁶² See AT&T 10K Report 1974 at 23.

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A great assortment [**72] of hypothesized rates can be found among the decisions of the various courts and public utility commissions that have adjusted capital structures for rate of return purposes. In most cases, the hypothesized percentage of debt is defended merely on the ground that the regulated company has been shown to be able to sustain that amount of debt without jeopardizing the integrity of its equity. ⁶³ When comparisons are made, the more common approaches are to refer to like utilities in the area, ⁶⁴ similar companies in the industry, ⁶⁵ or future trends predicted for the company itself. ⁶⁶ Viewing the grand display of public utility commissions' statements on this question, the rationale proffered by the FCC in this case certainly ranks among the more complete: it refers to the general industry, to a particular competitor, and to the financial ability of the company in question.

⁶³ See cases cited at note 68, *Infra*.

⁶⁴ See, e. g., *Pennsylvania Pub. Util. Comm'n v. Johnstown Water Co.*, 19 PUR3d 433, 443-4 (Pa. Pub. Util. Comm'n 1957).

⁶⁵ See, e. g., *Re Lawrence Gas Co.*, 12 PUR3d 64, 66 (Mass. Dept. of Pub. Util. 1955); *Pennsylvania Pub. Util. Comm'n v. Peoples Nat'l Gas Co.*, 6 PUR3d 341, 357 (Pa. Pub. Util. Comm'n 1954).

[**73]

⁶⁶ Cf., e. g., *New Eng. Tel. & Tel. Co. v. Department of Pub. Util.*, 360 Mass. 443, 275 N.E.2d 493 (1971).

In addition to the foregoing sufficient justifications for the choice of 45%, it [*907] should be noted that many public utility commissions and courts have chosen 45% In the absence of alternative evidence. The Supreme Court of Louisiana has stated:

Since the decision of the United States Supreme Court in the case of *Federal Power Commission v. Hope Natural Gas Co.*, *supra*, the hypothetical 45% Debt ratio rule has been almost universally adopted in those states where there is no formula prescribed by constitutional provisions or statutes for the determination of a rate base.

Southern Bell Telephone & Telegraph Co. v. Public Service Commission, 239 La. 175, 199, 118 So.2d 372,

381 (1960). ⁶⁷ Cases which have applied the 45% Rule almost automatically have involved a wide assortment of actual debt ratios that ranged from zero to just under 45%. ⁶⁸ Other target debt ratios have also been used in their own appropriate context: adjustments have [**74] been made from 27% To 38%, ⁶⁹ from 39.4% To 47.5%, 70 from 7% To 35%, ⁷¹ and so on. Of most interest here are those cases that have imputed a high debt percentage for a company with no debt at all. In *Pennsylvania Public Utilities Commission v. Johnstown Water Co.*, 19 PUR3d 433, 443-44 (Pa. Pub. Util. Comm'n 1957), the Commission imputed a debt of 59% To an all-equity company, although the subject company had recently begun to borrow small amounts on the short-term market. In *Re Lawrence Gas Co.*, 12 PUR3d 64 (Mass. Dept. of Pub. Util. 1955), a 45% Level of debt was assumed, although once again the creation of debt was not completely an assumption because the subject company was a subsidiary of another which had a 57% Debt ratio. In *Lower Paxton Township v. Commonwealth*, 13 Pa.Cmwlt. 135, 144-45, 317 A.2d 917, 921-22 (1974), a company with an all equity capital structure was hypothesized to have 55% Of its capital subsumed by debt, for purposes of rate-making.

⁶⁷ See also *Re Southern Bell Tel. & Tel. Co.*, 12 PUR3d 170, 191 (Tenn. Pub. Serv. Comm'n 1956), citing "other authorities which have upheld a 45 per cent debt ratio and reconstructed the company's capital structure."

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⁶⁸ See, e. g., (in order of increase in imputed debt) *Louisiana Pub. Serv. Comm'n v. Southern Bell Tel. & Tel. Co.*, 14 PUR3d 146, 164 (La.Pub.Serv. Comm'n 1956) (debt of 21.3% Imputed as 45%), *Aff'd*, 232 La. 446, 94 So.2d 431 (1957); *Re Southern Bell Tel. & Tel. Co.*, 12 PUR3d 170, 190 (Tenn. Pub. Serv. Comm'n 1956) (22.91% Imputed as 45%); *Re Mountain States Tel. & Tel. Co.*, 23 PUR2d 233, 250 (Montana Pub. Serv. Comm'n 1958) (28.05% Imputed as 45%); *Re Mountain States Tel. & Tel. Co.*, 6 PUR3d 428, 436, 438 (Idaho Pub. Util. Comm'n 1954) (30.8% Imputed as 45%); *New Eng. Tel. & Tel. Co. v. Department of Pub. Util.*, 327 Mass. 81, 89-91, 97 N.E.2d 509, 517-518 (1951) (35% Imputed as 45%); *Re New Eng. Tel. & Tel.*, 2 PUR3d 464, 485-7 (Mass. Dept't Pub. Util. 1953) (35% Imputed as 45%); *Pennsylvania Pub. Util. Comm'n v. Peoples Nat'l Gas Co.*, 6 PUR3d 341,

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357 (Pa.Pub. Util. Comm'n 1954) (36% Imputed as 45%).

The 45% Rule has even been applied in reverse, bringing Down a regulated company's debt ratio for purposes of estimating a rate of return. See, e. g., *New Eng. Tel. & Tel. v. Dep't of Pub. Util.*, 331 Mass. 604, 619, 121 N.E.2d 896, 904 (1954) (62.1% Imputed as 45%); *Public Util. Comm'n v. Consolidated Water Co.*, 98 PUR3d 507, 514 (Pa. Pub. Util. Comm'n 1973) (50% Imputed as 45%).

[**76]

69 Re Mountain States Tel. & Tel. Co., 14 PUR3d 230, 237 (Wyo. Pub. Serv. Comm'n 1956).

70 Re New Eng. Tel. & Tel. Co., 22 PUR3d 470, 474-75 (Mass. Dep't of Pub. Util. 1958).

71 Re Diamond State Tel. Co., 21 PUR3d 417, 432, 435-36 (Del. Pub. Serv. Comm'n 1958).

(11) Our conclusion must be that there is adequate authority, both in the factual administrative record here, and in prior decision law of courts and public utility commissions, to support the imputation by the FCC of 45% Debt to the all-equity structured COMSAT for rate-making purposes.

Nevertheless, we are not insensitive to the adjustment problems that are involved in the 45% Imputation, particularly in light of the fact that COMSAT was in no respect negligent in business sense for using an all-equity structure. There were many good, conservative reasons for that capital structure.

The Commission chose to impute a 45% Level of debt for 1975, and future years, in its decision that was issued in December of 1975. (J.A. 60, 56 FCC2d at 1160). Admittedly, [*908] [**77] the FCC was not ordering a restructuring of COMSAT's capital structure, so the shock of actually going from zero to 45% Debt was not necessarily imposed. However, when the Commission imposed the 45% Assumption it was fully aware that unless COMSAT did adopt a level of debt at least that high, the stockholders would not receive an 11.3% Rate of return on equity which, as noted elsewhere in this appeal, is at the lower limit of what could be approved as compensatory. ⁷² (J.A. 73, 56 FCC2d at 1173).

72 The comments of Commissioners Reid and

Hooks in concurrence, and Commissioners Washburn and Lee in dissent (J.A. 88, 89, 90; 56 FCC2d 1188, 1189, 1190), indicate that any rate of return lower than 11.3% Would not be acceptable to a majority of the Commission.

(12) Under the assumptions most favorable to the position of the Commission, 1973 was the year in which COMSAT reached a level of maturity able to sustain debt in its capital structure. (J.A. 58, n. 92; 56 FCC2d at 1158, n. 92). [**78] The Commission's warning did not come until December of 1975, however; and then it could not fault COMSAT for maintaining an all-equity structure as late as 1973. The result is that, no matter what COMSAT might have done to increase debt earlier, it is a stretch of the Commission's finding to rule that COMSAT should have begun to lever its capital structure in 1973. COMSAT was not made aware of the consequences for rate-making of not obtaining debt financing until late 1975. Accordingly, it was an abuse of discretion for the Commission to treat COMSAT as though it had 45% Debt all at once (indeed, retroactively, since the 45% Assumption applied to the entire 1975 year, while the Commission's opinion did not issue until December of 1975).

COMSAT, of course, is free not to alter its capital structure at all. ⁷³ If it chooses not to do so in the face of the now-apparent FCC rate-making policy, then it is consciously accepting a lower rate of return for its stockholders, possibly in the interest of preserving for them a low level of risk. The fault of the Commission's action in this opinion is to deny COMSAT even the opportunity to make that choice and begin to phase in debt. As of the [**79] moment the opinion was issued, COMSAT shareholders were subjected to a less than adequate rate of return. If the level of hypothesized debt were only a small increase over the amount of debt already in COMSAT's capital structure, then, perhaps, no time period would necessarily have been required before the hypothetical debt structure could be applied. That was the case in the vast majority of hypothesized debt decisions cited previously. But the jump from zero to 45% Is not a small one, particularly for a company totally inexperienced theretofore in raising funds in the debt market. The Commission has elsewhere in this opinion expressed a sensitivity to the transitional problems as COMSAT matures; for example, it afforded a five-year amortization period phase-out for laboratory investment considered no longer appropriate as COMSAT developed

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past the experimental stage. (J.A. 26; 56 FCC2d at 1126). And that phase-out was scheduled to begin in 1976, the year following the Commission's decision. We hold that similar consideration should have been afforded to COMSAT's infusion of debt. The 45% Debt ratio assumption should be phased in gradually, and be scheduled to commence [**80] in the future, not retroactively. The precise details of the formula are for the Commission to develop upon remand.⁷⁴

73 The Commission's opinion observes, however, that COMSAT has already agreed that "it would be desirable for it to include some debt in its capital structure and is prepared to do so." (J.A. 59, n. 96; 56 FCC2d 1159, n. 96).

74 The FCC staff had proposed a gradual imputation of debt, starting in 1972, and reaching 50% After five years. The Commission ignored the phase-in aspect of its staff's recommendation. (J.A. 57, n. 91; 56 FCC2d at 1157, n. 91).

The general effect of what we order can be described, however. COMSAT will be allowed to charge rate sufficient to earn at least an 11.3% Return on its rate base during the first year after the Commission's order if COMSAT still has no debt. Thereafter, over a period of years to be set by the [*909] Commission, the allowed rates should be lowered, corresponding to that level which would return 11.3% On [**81] the COMSAT equity if COMSAT had a certain percentage of debt. That assumed percentage of debt will rise (and the allowable rates will fall) until the hypothetical level of debt reaches 45% Of the capital structure.

C. The Combined Effect

In part A of this section, we have upheld the Commission's determination that 11.3% Was a fair rate of return to the equity invested by COMSAT's shareholders. In part B, we have remanded the question of imputing debt into the capital structure so that the process may be made gradual. In joining together these two determinations, we must take account of a potential inconsistency. The Commission's conclusion that COMSAT was, as of 1973, no more risky an investment than AT&T was found to be defensible entirely because of COMSAT's all-equity capital structure which had the effect of reducing risk. Yet that all-equity capital structure created an inordinately high cost of capital, imposing an excessive burden on the rate-payers, and it was for that reason that we upheld the hypothetical

imputation of debt. If COMSAT moves toward a 45% Level of debt, the Commission will be forced to reconsider its decision that COMSAT is no more risky than AT&T. The presence [**82] of any debt in the capital structure undercuts the Commission's 11.3% Rate of return estimate. In only one case will the Commission not be forced to reconsider that estimate: if COMSAT persists in an all-equity structure.⁷⁵ If COMSAT does not take steps to lever its capital structure over the time period specified by the Commission upon remand, then it has consciously accepted a lower rate of return for its stockholders (because of the imputed debt) while guaranteeing them minimum risk (because of no actual debt). That could be a proper decision for COMSAT to make.

75 We note that COMSAT has already stated its intention to adopt some debt, 56 FCC2d at 1159 n. 96, and it seems to have embarked on that course. The Statement of Consolidated Financial Position for the year 1974, found in the 1975 ANNUAL REPORT OF COMSAT (on file with the Securities and Exchange Commission) at p. 17, shows an entry of one million dollars under "Long Term Debt."

IV. THE REASONABLENESS OF THE OVERALL RESULT

From Hope [**83] Natural Gas through Permian Basin Area, and up to the Supreme Court's latest statement, the scope of review of rate regulation by appellate courts, the reasonableness of a rate of return allowed to a regulated company has been judged from the perspective of its effect on the company and the public. Permian Basin specified other factors for review, of course, and these have been treated above.⁷⁶ The question we now address is the third issue emphasized in Permian Basin Area : "whether the order may reasonably be expected to maintain financial integrity, attract necessary capital, and fairly compensate investors for the risks they have assumed, and yet provide appropriate protection to the relevant public interests, both existing and foreseeable." 390 U.S. at 792, 88 S. Ct. at 1373.

76 See 390 U.S. 747, 791-2, 88 S. Ct. 1344, 20 L. Ed. 2d 312 (1968). See note 16, Supra.

A. Comparison with AT&T

While suggesting that the Satellite Act entitled

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COMSAT to rely more heavily, perhaps, [**84] then other regulated companies upon governmental support, COMSAT has conceded that nothing in the legislative history of the Satellite Act or any other statute entitled it to a certain level of profit, or even a profit at all. The objection eventually condenses to a comparison of the rates of return actually earned by COMSAT over the course of its history, and those earned by AT&T as a comparable regulated company. COMSAT claims that it is not comparable, that it is a more risky enterprise than AT&T. It correctly cites the Commission's finding that COMSAT was more risky until 1973, and asserts that nothing has changed since then to make it less risky. We are not concerned with the years before 1973 since [*910] we find nothing in COMSAT's particular situation to justify a departure from the usual rule that past losses are immaterial to present rate-setting proceedings.

As for the present, it is a truism that AT&T generally is not a risky investment, though the degree of risk varies with whether one is talking about its common stock, its preferred stock, or its bonds; and in each of these there may be substantial risk to one's investment objectives immediate or distant depending [**85] on the price and the state of the market generally. AT&T may be a less risky enterprise than COMSAT, but that does not make it a less risky investment opportunity. The price of AT&T stock has not ranged as widely as COMSAT over the years both have existed,⁷⁷ and COMSAT's variance has been entirely on the upside since it was offered at \$ 20. The Commission used AT&T to compare with COMSAT, and for that reason, COMSAT's rebuttal based on dividends and book value is not an inappropriate exercise. However, one must keep in mind that an investor who buys AT&T stock at a relatively high point and watches it fall will be little convinced that his investment was not risky because AT&T never missed a dividend.

⁷⁷ Standard & Poor's Corporation Stock Guide, May, 1977 at 18, 56 (data revised through April 29, 1977). See note 32, Supra.

COMSAT has placed great reliance upon a depiction of the returns of each company from 1964 to 1973. See Table in Brief of Petitioner at 35. The table shows the book value per share in [**86] 1964 and in 1973 for COMSAT and for AT&T, and the dividends per share compounded at 6% Per annum from the year declared

through 1973. The sum of that figure and the increase in book value per share is listed as "Total Return," which is then expressed as a percent of the 1964 book value in each case. The result is a figure of 81.14% Total return for COMSAT and 136.00% For AT&T. COMSAT argues that its rate of return is therefore less than what the statute requires as "just and reasonable."

The comparison is fundamentally false. COMSAT has nothing but equity in its capital structure.⁷⁸ Every dollar represented in book value corresponds to some investor's equity holding. AT&T, by contrast, has maintained a considerable amount of debt in its capital structure throughout the 1964 to 1973 period. AT&T's earnings were made partly upon its equity capital, and partly upon the capital it borrowed generally at a lesser cost than the dividends it pays on its equity holdings. A fixed rate of interest had to be paid on the borrowed capital, but having met that obligation, the remaining portion of earnings on the borrowed capital was available to AT&T to pay out in dividends or retain as earnings. [**87]

⁷⁸ See part III, section B, page -- - of 198 U.S.App.D.C., page 902 of 611 F.2d, Supra.

What makes COMSAT's comparison unsound is that the "Total Return" is expressed "as Percent of 1964 Book Value." In 1964, AT&T had \$ 9.176 billion of debt outstanding and \$ 18.860 billion of equity, for a debt-to-capital-ratio of 32.73%.⁷⁹ By 1973, AT&T had a capital structure consisting of \$ 28.371 billion in debt and \$ 31.224 billion in equity, resulting in a debt-to-capital ratio of 47.6%.⁸⁰ Hence, over the relevant years, AT&T increased its amount of outstanding debt by over \$ 19.194 billion, which more than tripled its 1964 debt level; and its debt Ratio increased by almost half. During all this time, COMSAT floated no bonds at all.

⁷⁹ 1967 Annual Report of American Telephone & Telegraph Co., Inc., 31 (ten-year summary) (grouping preferred stock with equity). See note 31, Supra.

⁸⁰ 1974 Annual Report of American Telephone & Telegraph Co., Inc., 35 (grouping preferred stock with equity). See note 31, Supra.

[**88] Thus, not only do the figures for AT&T reflect a rate of return on borrowed capital, which COMSAT did not have; but also, most importantly, they reflect a return on an ever-increasing Amount of

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borrowed capital, resulting in an ever-increasing leverage of equity over debt. It would have been imprecise enough to compare a leveraged [*911] company with an all-equity company, but to compare COMSAT with AT&T whose ratio of debt was increasing substantially over the period presents an even more distorted result.

If a comparison with AT&T is deemed informative, the figures should attempt to reflect the return earned by AT&T, and by COMSAT, on the Equity represented in the capital structure of each. Based on the figures set forth, the average level of equity for AT&T was \$ 25.042 billion over the 1964-1973 period, and the average level of debt was \$ 18.773 billion. The \$ 37.78 per share total return does not include the earnings that went to debt service; adding back an approximation of 6.5% Debt service per year (compounded on the amount of debt), ⁸¹ the total of earnings and debt service for AT&T on these figures would come to \$ 47.07 per share. ⁸² If the \$ 47.07 per share total [**89] return for AT&T were then prorated according to its capital structure, \$ 26.90 would be earned on that portion of the total capital contributed by equity, and \$ 20.17 would be earned on the part contributed by debt.

81 The interest rate of 6.5% Was chosen as the average effective yield on debt issues by AT&T during the 1963-1973 period that are still outstanding. Each interest rate was weighted by the size of the offering to derive the average. The result reached was 6.42%. See Moody's Bond Record (1977) 4. See note 31, Supra.

82 The method of calculation used in this rough estimate was as follows. The interest rate of 6.5% Compounds to 76.26% In nine years. The average percentage of debt in the capital structure over the period was 43.85%. Hence, 43.85% Of 76.26%, or 33.44%, is the estimate of additional earnings accounted for by debt service over the period. That brings total return up to \$ 47.07 per share.

For the limited purposes of analyzing the rate of return figures advanced by COMSAT (Brief for [**90] Petitioner at 35), the \$ 26.90 figure may be taken as one measure of what AT&T did earn on the equity in its capital structure. ⁸³ As a percent of its 1964 book value, that per share figure represents a 96.83% Rate of return, which is substantially below the 136.00% Rate of return claimed in the brief. The remaining difference between that rate of return and the 81.14% Earned by COMSAT,

to the extent any direct comparison of this sort is useful, can be justified by the fact that COMSAT stock carries a high potential for capital appreciation.

83 Actually, it is a high estimate since AT&T was able to earn an overall higher return due to the debt in its capital structure, if there are increasing returns to scale.

B. The Expectations of Investors

The comparison with AT&T, therefore, does not demonstrate that COMSAT's rate of return has fallen short of what is just and reasonable. COMSAT's complaint was more general, however. It asserted that the original subscribers of COMSAT stock were being denied the right [**91] ever to make a fair rate of return on their investment. The Commission has prescribed rates only for the future; the revenues COMSAT received from 1964 to 1973 were left unadjusted and COMSAT's plea to capitalize the difference between those actual revenues and its conception of adequate revenues was turned down. Hence, no matter what AT&T was making, COMSAT equity investors who subscribed in 1964 are, in COMSAT's view, being compelled to accept 6.45% Per annum as the only rate of return they are to receive for their investment from 1964 to 1973.

Because COMSAT has been regulated from its inception, it is argued that it should be an exception to the accepted law that earnings shortfalls during the formative years are not to be capitalized. That argument is a familiar one; it is simply the same assertion that a regulated company is entitled to some minimum rate of return. The most compelling aspect of that argument in this setting is that Congress intended COMSAT to become a prosperous company, and that it expected investors to view it as a sufficiently profitable prospect so as to merit their capital.

All of this may well be true. The conclusion that COMSAT urges follows from it, [**92] however, is not. COMSAT looks at the 6.45% Rate of return and infers that no [*912] investor would have committed funds for that small reward. But the 6.45% Figure was calculated only from increase in book value and dividends paid. It did not consider the appreciation of an investor's capital from a rise in the price of COMSAT stock. It is hardly necessary to state the financial fact that stocks most often sell at multiples of the book value per share of the company. The difference represents investor confidence

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in the likelihood of appreciation of the stock itself. And it is for this reason, in many cases even more than the hope of dividends (and certainly more than the simple expectation of increase in book value), that the public invests.

COMSAT makes much of the public relations strategy used to induce investment in COMSAT in 1964: buy it at the start, put it away, and let your grandchildren benefit. Undoubtedly the prospect of getting in at the ground-level on a government-sanctioned monopoly was attractive, but the logic underlying that attraction was that the price of the stock would appreciate as global telecommunications increasingly came to depend upon the use of satellites, [*93] and as the day of COMSAT's self-sufficiency approached. This is not to say that the entire appreciation in stock price was unrelated to the underlying appreciation in book value or the rates COMSAT was permitted to charge its customers, but it is important to recognize the speculative aspect of an investment in COMSAT.

This aspect of a decision to invest in COMSAT was clearly stated by Commissioner Robinson in his separate opinion:

Thus, if the start-up period is expected to last five years and once out of that period Comsat is expected to earn \$ 10 a year for eternity then investors will be willing to pay the value of stock earning an annuity of \$ 10 a year with payments to begin in five years. Such a stock is worth less than a stock of a company earning \$ 10 a year right now but it is not valueless. A rational investor would buy Comsat even if he never expected a cent of return deficiencies to be allowed. Nothing the Commission has ever done, and nothing in the history of rate regulation generally would lead reasonable investors to expect that Comsat would be permitted to make up any earnings shortfall particularly one defined as a return falling short of 12 percent by a special [*94] component in the rate base or in the rate of return.

(J.A. 93-94; 56 FCC2d at 1193-94) (emphasis added).

Initial subscribers of COMSAT stock were not all looking to the allowed rates that COMSAT charged to provide dividends and increased book value as a return on their investment. The expectation of speculative gain must also be recognized. The actual fluctuation in COMSAT stock provides all the proof needed that there was much opportunity for the early investor to make his speculative profit. In June of 1964, ten million shares of COMSAT were first offered to the investing public and common carriers at \$ 20 per share. It has never fallen below \$ 20 since. ⁸⁴ Over the course of the last thirteen years, the stock price has varied widely, reaching a high of 84 1/2 . ⁸⁵ In the last two years, it has stayed within the range of 23 7/8 and 37 3/8 . ⁸⁶

84 Standard & Poor's Corporation Stock Guide, supra note 77 at 56. See note 31, Supra.

85 Id.

86 Wall Street Journal, July 11, 1977, at 26, col. 2 (Eastern ed.); Standard & Poor's supra. See note 31, Supra.

[*95] (13) The hope for appreciation of stock price is an aspect of investor behavior that COMSAT's argument to this court entirely ignores. And it is in light of that aspect that we may conclude both that the rate of return to be afforded COMSAT will not scare off investment, and that the historical return enjoyed by COMSAT stockholders was adequate to "attract necessary capital, and fairly compensate investors for the risks they have assumed" ⁸⁷ in investing in [*913] an enterprise having the capital appreciation potential of COMSAT.

87 *Permian Basin Area Rate Cases*, 390 U.S. 747, 792, 88 S. Ct. 1344, 1373, 20 L. Ed. 2d 312 (1968).

We have given careful consideration to all the many contentions raised by the petitioner, and any of those matters not specifically addressed in this opinion have been deemed insubstantial. The case is remanded to the Commission for further proceedings as directed by this opinion.

So ordered.