

Economic Analysis

**AN ECONOMIC ASSESSMENT OF THE
RISKS AND BENEFITS OF DIRECT ACCESS
TO INTELSAT IN THE UNITED STATES**

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I. INTRODUCTION AND SUMMARY

We have been asked by COMSAT Corporation (“Comsat”) to undertake an economic analysis of the risks and benefits to competition and consumers if INTELSAT’s program of “Level 3” direct access were implemented in the United States.¹ Because the *Notice* tentatively concludes that the agency lacks the statutory authority to require “Level 4” direct access, that program is not considered here.²

As the *Notice* acknowledges, the Commission rejected direct access in a 1984 order.³ The Commission then found “*very little to be gained from [adopting direct access] in terms of cost savings or increased efficiency*”⁴ and noted that “[w]e are unpersuaded that, whatever benefits are to be derived, they would be so substantial as to outweigh the adverse consequences which are likely to attend the adoption and implementation of direct access.”⁵ After analyzing the situation today relative to the mid-1980s, we find direct access in the U.S. is even less in the public interest now than when it was last rejected. The potential benefits of direct access have diminished due to the emergence of competing non-INTELSAT facilities, and would be short-lived given that Comsat’s exclusive role as the U.S. Signatory would expire automatically upon INTELSAT privatization. However, the

¹ The Federal Communications Commission (“FCC” or “Commission”) is exploring this matter in its *Notice of Proposed Rulemaking – In the Matter of Direct Access to the INTELSAT System*, IB Docket No. 98-192, File No. 60-SAT-ISP-97 (rel. October 28, 1998) (“*Notice*”).

² Note, however, that many of our conclusions (summarized below) generally apply to both forms of direct access.

³ *Regulatory Policies Concerning Direct Access to INTELSAT Space Segment for the U.S. International Service Carriers*, 97 FCC 2d 296 (1984) (“*1984 Direct Access Order*”), aff’d, *Western Union International, Inc. v. FCC*, 804 F. 2d 1280 (D.C. Cir. 1986).

⁴ *1984 Direct Access Order*, at 55 [emphasis added].

⁵ *Id.* at 3 [emphasis added].

risks of adopting direct access at this time are much greater—in part because it would threaten or delay privatization (an option that was not even on the horizon in 1984).

The reasons given to revisit direct access are unpersuasive. First, some customers are requesting direct access today; however, these requests are hardly new—they were made in the early 1980s too. The relevant question for public policy is not whether some customers would gain, but whether their gains would reflect genuine efficiencies or simply arise at the expense of other parties (such as Comsat or U.S. taxpayers).

Second, advocating direct access because Comsat remains a “dominant carrier” for some services on some routes is equally unpersuasive. Since Comsat’s “dominance” did not justify direct access in 1984, direct access surely cannot be justified now—given FCC findings in the *Comsat Non-Dominance Order*⁶ of substantial competition for the large majority of Comsat’s services—competition that was largely absent in 1984. Allegations of Comsat’s inflated “mark-up” are simply misleading and reflect basic misunderstandings both of INTELSAT Utilization Charges (“IUCs”) and the alleged “mark-up.” The related point that direct access would provide an additional option for international service suffers from the same flaw—there are clearly more options available today than existed back then.

Third, the reasoning that the U.S. should implement direct access because INTELSAT now offers direct access programs which many countries have adopted also misses the mark. The direct access options considered and rejected in 1984 were essentially identical to the Level 3 and Level 4 direct access options under consideration now. As for possible lessons from the experience of other countries, the critical—but largely unappreciated—flaw in this rationale is that the situation in other countries differs fundamentally from that in the U.S. Direct access in other countries is largely part of a cure for structural problems that do not

Order and Notice of Proposed Rulemaking in 60-SAT-ISP-97, FCC 98-78 (rel. April 28, 1998) (“Comsat Non-dominance Order”).

exist in the U.S. Unlike the PTT Signatories of most countries, Comsat is not vertically-integrated into retail services, and is not horizontally integrated into alternative international facilities. Comsat is, in effect, the only “pure play” investor among all INTELSAT Signatories. And unlike other countries, the U.S. is unusually well served by competing cable and satellite systems. These differences imply, as our analysis demonstrates, that direct access in the U.S. would raise unique and significant concerns, while offering very small potential benefits.

Significant Public Policy Concerns

Direct access in the U.S. would introduce significant public policy concerns, most of which are smaller or entirely absent in other countries.

- INTELSAT (but not Comsat) is *exempt from U.S. taxes*. Thus, allowing INTELSAT direct access to the U.S. retail market would harm U.S. taxpayers—and it would distort competition due to INTELSAT’s artificial tax advantage over Comsat and other competitors. INTELSAT’s tax exemption (and other unique advantages) would be more consequential in the U.S. because, as explained shortly, direct access would divert to INTELSAT far more revenues from Comsat than from Signatories abroad.
- Because the IUCs do not reflect Comsat’s full costs associated with direct access users (including taxes and an adequate return on Comsat’s investment), there would be a considerable risk that—particularly without an adequate surcharge—the handful of large U.S. carriers would *obtain direct access at below cost*. While such below-cost pricing would benefit the U.S. carriers and have little impact on foreign Signatories, it would greatly harm Comsat and also distort competition.

Comsat’s exposure to non-compensatory, below-cost direct access is significantly greater than foreign Signatories’. Because Comsat does not generate its own traffic but provides space segment mostly to the large U.S. retail carriers, the lion’s share of

Comsat's traffic could shift to direct access. In contrast, foreign Signatories are vertically-integrated carriers and use INTELSAT space segment primarily to provide their own retail services, not to supply capacity to other carriers.

Direct access also would enable the large U.S. carriers and foreign Signatories to jointly gain at Comsat's expense by manipulating IUCs. Because other Signatories would be impacted little by lower IUCs, the U.S. carriers could compensate them with the large gains they would realize at Comsat's expense. (IUCs matter little to foreign Signatories even in countries that adopted direct access, because their share of INTELSAT investment still primarily reflects their own utilization as vertically-integrated retail carriers; so their IUC receipts as investors largely cancel the IUC payments for their own utilization).

- U.S. direct access would *delay and skew efforts to achieve pro-competitive privatization* of INTELSAT. If Level 3 direct access were available to U.S. carriers, they would have strong incentives to delay or skew privatization to preserve below-cost direct access. Their influence would be considerable (notwithstanding the absence of a formal governance role as non-owners) because, among other reasons, they would be INTELSAT's largest customers. Correspondingly, Comsat's role within INTELSAT would be diminished—which is detrimental as Comsat is the largest and sole pure-play INTELSAT investor.

Moreover, allowing INTELSAT to access directly the U.S. market—the world's most important telecommunications market—would also reduce the incentives of foreign Signatories to pursue INTELSAT privatization; less drastic restructuring alternatives may be perceived as more attractive to many Signatories. Allowing direct access now would therefore eliminate an important policy lever available to advance privatization, now that privatization is finally within reach.

INTELSAT's "Return" and the Need for a Direct Access Surcharge

If the FCC nevertheless decides to adopt direct access, *a surcharge above the IUC's is required* to allow Comsat a fair opportunity to recover the costs (including investment and Signatory costs) that it would continue to incur on behalf of direct access customers. The IUCs offer a return on space segment investment significantly below the return that private, tax-paying entities—such as Comsat—require as fair compensation. Once the true cost of owning INTELSAT space segment on behalf of U.S. customers is taken into consideration, Comsat's margins do not reflect supra-competitive profits or monopoly rents but, in fact, are fully consistent with the "margin" that the Satellite Users Coalition holds out as a competitive benchmark.⁷

Comsat's willingness to hold surplus ownership in INTELSAT does not imply that the IUC return covers total space segment costs. Rather, surplus ownership is explained by other considerations, notably the desire to preserve U.S. voting influence and the related ability to promote privatization. Moreover, unlike the INTELSAT investment obligation that Comsat would be mandated to assume on behalf of Level 3 direct access customers, its current surplus ownership represents no such investment obligation and, thus, does not require equal compensation.

Very Limited Benefits

Direct access does have the potential to offer *some* benefits; however, *genuine* gains would be very small and virtually certain to be outweighed by the previously discussed concerns.

- Any direct access benefits would be short-lived because they would be achieved automatically upon privatization of the remaining INTELSAT.

⁷ *Analysis of the Privatization of the Intergovernmental Satellite Organizations Proposed in H.R. 1872*, Satellite Users' Coalition, March 1998 ("*SUC Analysis*"), p. 24.

- The potential for direct access benefits in the U.S. would be far smaller than in other countries. Unlike Signatories in most other countries, and due to pioneering pro-competitive U.S. policy since the early 1980s, Comsat already faces substantial facilities-based competition (*i.e.*, from cable and satellite systems owned by others). In addition, Comsat continues to be regulated by the FCC, whose experience and sophistication arguably is unmatched by its counterparts abroad.
- Reflecting facilities-based competition and FCC regulation, the U.S. portion of INTELSAT space segment supplied by Comsat today accounts only for a very small portion of the U.S. carriers' international retail revenues. The potential for cost savings is therefore very limited. Moreover, even if small savings were realized, pass through to U.S. end users would be unlikely: (1) dominant foreign carriers would likely appropriate part of these savings (it would only take an unnoticeably small increase in their settlement charges); and (2) U.S. retail carriers have a highly questionable track record for passing through past cost savings.

The remainder of this report is organized as follows. Sections II., III., and IV. analyze and discuss the concerns raised by direct access in the U.S.—the implications of INTELSAT's tax-exempt status, the substantial risk of below-cost direct access to INTELSAT, and the risk of delayed or skewed privatization. Section V. explains INTELSAT's IUC mechanism, illustrates the true return provided through the IUC mechanism, justifies the need for a direct access surcharge, addresses Comsat's surplus ownership, and discusses the true "margins" in Comsat's cost structure. Section VI. discusses the limited potential benefits of direct access in the U.S. due to pending privatization, the fundamental differences between the telecommunications industries in U.S. and other countries, and the questionable pass through of carriers' space segment savings to end users.

Section VII. presents the inescapable conclusion: the costs of direct access today far exceed any potential genuine benefits. Direct access, no matter what views are espoused, is at

bottom a temporary and economically inferior remedy to address the exclusive-Signatory intergovernmental structure of INTELSAT, a structure which is in the midst of being dismantled and privatized at the very same time this rulemaking is underway. Simply put, at this stage direct access could do little good, but could cause considerable harm.

II. CONCERN 1: INTELSAT IS TAX EXEMPT

Direct access would permit INTELSAT to undertake “retailing” functions now performed by Comsat. Since INTELSAT is tax exempt, it could pass on some of the tax savings on retailing functions to direct access customers. Such savings to direct access customers, however, will reflect not genuine efficiencies but economic distortions due to INTELSAT’s tax exempt status. Therefore, gains to direct access customers may be outweighed by losses to other U.S. parties; that is, direct access may benefit users but reduce overall U.S. welfare.

INTELSAT’s tax exemptions includes exceptions from corporate income taxes, property taxes, payroll taxes, personal income taxes of non-U.S. employees working at INTELSAT’s headquarters in Washington, D.C. Exemptions from these taxes give INTELSAT an artificial operating cost advantage. Its exemption from corporate income taxes is also relevant to assessing the return that Comsat, as a fully taxable owner/investor in INTELSAT, would earn through INTELSAT’s IUC mechanism if U.S. direct access were allowed at the IUCs.⁸

A. COMPETITIVE DISTORTIONS

INTELSAT is tax exempt, while private U.S. corporations—such as Comsat and other providers of satellite services—are not. Of course, in INTELSAT’s current role as cost-

⁸ The IUC mechanism and the return it would provide to Comsat in a direct access environment are discussed in detail in Section V.B. below.

sharing cooperative providing space segment, its tax exemption has no competitive effect in the U.S. market, because Comsat is fully liable for property taxes, payroll taxes and, importantly, for corporate income tax payments on all INTELSAT revenues it generates in the U.S. Allowing INTELSAT to compete directly at the retail level in the U.S. market would change this situation fundamentally. Direct access would distort competition because INTELSAT would enjoy an *artificial* “retailing” cost advantage over both Comsat and non-INTELSAT competitors (who provide such retailing functions bundled with satellite capacity), and therefore might win business irrespective of whether it is otherwise the most efficient service provider. INTELSAT could, thus, inefficiently capture business both from competing systems (*e.g.*, PanAmSat customers switching to INTELSAT) and from Comsat (customers opting for direct access instead of going through Comsat).

INTELSAT’s privatization will eliminate its tax exemption and other artificial advantages stemming from its status as an IGO.⁹ (Privatization will also eliminate the IGO-related *disadvantages*, such as unique nondiscrimination obligations and, especially, a cumbersome governance and financial structure.) Thus, prior to privatization, direct access would be a step in the wrong direction; instead of narrowing the scope of INTELSAT’s tax exemption and other artificial advantages, it would extend it to encompass a larger portion of the value-added chain.

B. LOSSES TO U.S. TAXPAYERS

Because INTELSAT is tax exempt, any expansion of its retailing business is associated with losses to U.S. taxpayers. This is obviously true when INTELSAT diverts business from taxable competitors, as described above. But U.S. taxpayers lose even if INTELSAT could expand its retailing business not by diverting customers but by growing the size of the overall

⁹ Concerns regarding INTELSAT’s immunities from regulatory jurisdiction are discussed in the *Notice* at 57-58.

market. The latter follows because INTELSAT's expanded activities (*e.g.*, at INTELSAT's U.S. headquarters) would utilize personnel and other assets on a tax exempt basis at the expense of other sectors of the economy.

Expansion of INTELSAT's retailing functions through direct access therefore represents a subsidy to INTELSAT direct access customers from U.S. taxpayers. While those customers may gain from exploiting INTELSAT's tax exempt status, U.S. taxpayers would lose. The gains to such customers therefore overstate the gains to the U.S. as a whole. Indeed, the net U.S. "gain" could be negative—as is typical with subsidies generally.

III. CONCERN 2: DIRECT ACCESS PRICED BELOW COST

Granting U.S. customers direct access to INTELSAT at today's IUC levels would not allow Comsat to recover its eligible costs. To ensure fair recovery and avoid *below-cost access* to the INTELSAT space segment, a surcharge above the IUCs would be needed.¹⁰ A major concern with U.S. direct access, therefore, is the correct calculation of this surcharge. If the surcharge fell short, the result would be below-cost access by U.S. carriers to INTELSAT space segment. This would not only deny Comsat a reasonable opportunity to recover its investment; it would also distort competition by potentially diverting traffic to INTELSAT from more efficient facilities.¹¹

¹⁰ With "below-cost" access we mean access at a rate that is insufficient to provide Comsat with a compensatory return (including U.S. tax liabilities) on its INTELSAT space segment investment. From Comsat's perspective, and as discussed further in Section V., direct access at the IUCs without (or with an insufficient) surcharge would be "below cost" because IUCs specifically exclude allowances for the costs associated with Signatories' domestic tax liabilities and all other Signatory-related costs. (See Article 11 of INTELSAT's *Operating Agreement*. Note, however, that the IUCs do cover INTELSAT-internal costs, including amortization of investment and a pre-tax target return on investment.) We discuss the need for a surcharge in detail in Section V.

¹¹ The *Notice* (at 56-58) specifically asks for comments on such competitive concerns raised by direct
(continued...)

A. CONCERNS REMAIN EVEN IF AN “ADEQUATE” SURCHARGE IS ADOPTED

The surcharge typically envisioned is some *fixed* and *uniform* percentage over the various IUCs corresponding to INTELSAT’s various services. The key point of this section is that, even assuming adoption of an adequate surcharge—deemed sufficient to cover Comsat’s costs given *today’s* IUCs and *today’s* mix of INTELSAT services sold to U.S. customers—concerns with under-pricing of INTELSAT space segment would still remain. This point is fundamental to understanding why direct access in the U.S. would raise unique concerns. The logic is as follows.

Today, Comsat’s revenues from U.S. customers depend on its FCC tariffs, which are determined directly based on Comsat’s cost structure, *not* based on marking up the IUCs. If direct access were introduced in the U.S., at prices directly linked to IUCs, Comsat’s revenues from U.S. direct access customers would be determined neither by Comsat nor the FCC, but *by foreign Signatories*. This is because foreign Signatories account for over eighty percent of INTELSAT ownership, and IUCs—which would determine U.S. direct access charges—are set by majority vote. With direct access tied to the IUC, it is fair to presume that the major U.S. carriers, who would then become some of the largest customers of INTELSAT, would use their new bargaining power to reduce the IUCs below current levels. Importantly, if IUCs were in fact reduced below today’s level, this would cause little if any harm to most foreign Signatories (whose INTELSAT ownership largely reflects the space segment they use for providing their own retail services), but would greatly benefit the few very large U.S. direct access customers—mainly the international retail carriers—at Comsat’s expense.¹² Given the many ways in which these carriers could share with foreign Signatories the gains they would derive from below-cost direct access to INTELSAT at

¹¹ (...continued)
access in the U.S.

¹² See discussion in Section B. below.

Comsat's expense, a sufficient number of foreign Signatories could likely be enlisted to depressing future IUCs.¹³ In fact, merely refraining from correcting INTELSAT's current IUC *structure*, which differs significantly from Comsat's current rate structure, would most likely suffice to under-price certain services to direct access customers, notably short-term contracts.¹⁴

These considerations help explain why large Comsat customers are seeking direct access, not only for thin route markets, but also for already-competitive routes. Prospective gains to carriers would derive from direct access being priced below cost at Comsat's expense, and not from the elimination of any monopolistic margins. The same logic cautions against acceding to such pressures as a matter of public policy.

B. WHY COMSAT IS UNIQUELY VULNERABLE TO BELOW-COST ACCESS

Comsat differs from foreign Signatories in several major respects. First, it has the *most capital at stake* in INTELSAT. Its eighteen percent share of total INTELSAT ownership is more than double that of the next largest Signatory.

Second, Comsat does not generate the vast majority of the traffic it places on the INTELSAT system. Comsat is thus not a significant "user" of INTELSAT in the sense that it does not "use" the space segment mostly to provide its own retail services. In contrast, foreign Signatories are large, vertically-integrated telecom operators that mainly use INTELSAT capacity themselves—as inputs into retail services they sell to end users at prices entirely unrelated to IUCs.¹⁵ As the dominant local retail carriers, they also account for the vast

¹³ See discussion in Section C. below.

¹⁴ See Section D. below.

¹⁵ Another difference that becomes relevant later is that foreign Signatories, *but not Comsat*, typically hold interests in facilities competing with INTELSAT, notably undersea fiber cable systems. Comsat
(continued...)

majority of retail traffic to and from their countries. The potential scope of direct access abroad is thus generally limited to the relatively minor traffic volume represented by the incumbents' competitive fringe. Consequently, compared to foreign Signatories whose countries have adopted direct access, a far greater share of Comsat's current sales—indeed, the lion's share—could easily shift to direct access. If direct access customers were to pay non-compensatory access rates, *Comsat would therefore lose far more than any foreign Signatory*. Similarly, Comsat could lose far more from changes in the IUCs—while many foreign Signatories (those whose INTELSAT utilization matches their ownership) would not lose at all, while others (whose utilization exceeds their ownership) would actually gain.

Third, Comsat derives a significant portion of its revenues from only a *handful of unusually large customers*—in particular, the U.S.-international carriers.¹⁶ These carriers alone account for the majority of Comsat's traffic and about 10% of INTELSAT's entire worldwide utilization. In contrast, direct access abroad mostly involves new entrants and telecom providers with relatively small amounts of international traffic. The striking contrast in the size of potential direct access carrier customers in the U.S. and abroad—and in the financial implications of direct access—is due to two unique policy decisions taken early on by the U.S. to promote competition in telecommunications: (1) the largest U.S. carrier, AT&T, was *intentionally rejected* as the U.S. Signatory to INTELSAT, in favor of the then newly-created Comsat; and (2) the U.S. permitted competition in long distance telecommunications much earlier than did other countries, resulting in the emergence of additional major U.S. carriers (MCI/WorldCom, Sprint) now purchasing from Comsat. Given their size, these carriers would wield considerable influence with foreign Signatories to set IUCs that would help them realize substantial gains at Comsat's expense.

¹⁵ (...continued)

is therefore the *sole "pure play" investor* in INTELSAT—it is integrated neither vertically as an owner/user, nor horizontally into competing facilities.

¹⁶ Note that, not unlike many foreign Signatories, the U.S. carriers provide their retail services vertically-integrated with international telecommunications facilities (*i.e.*, through their ownership of fiber optic systems).

C. U.S. CARRIERS AND FOREIGN SIGNATORIES COULD GAIN AT COMSAT'S EXPENSE BY MANIPULATING FUTURE IUCs

Much of the direct access discussion implicitly presumes that IUCs could be taken—both today and in the future—as market prices or, at the minimum, as market-based proxies for the average costs of providing INTELSAT space segment. From this flows the suggestion that charges to direct access customers should be based on IUCs. As we show in Section V, however, IUCs are *not* market-based rates and they do not represent the full cost of providing INTELSAT space segment; at best, they are accounting rates set in the special context of a cost-sharing cooperative. A snap-shot analysis of Level 3 direct access at today's IUCs, thus, is unlikely to be a good predictor of the future effects of direct access should it be adopted in the U.S. In particular, there would be strong pressures to reduce IUCs to lower levels that, even with an adequate surcharge set today, would not allow continued recovery of Comsat's investment costs going forward. Here is why.

Level 3 direct access would create the opportunity for U.S. carriers to realize substantial gains at Comsat's expense with little harm to foreign Signatories. As major direct access customers of INTELSAT, carriers could be expected to use their bargaining leverage to push for low IUCs. Most foreign Signatories—which have generally balanced INTELSAT ownership and utilization shares—would not lose from a lowering of IUCs because the level of the IUCs is irrelevant to Signatories with balanced INTELSAT ownership and utilization shares.¹⁷ While some foreign Signatories do hold investment on behalf of Level 3 direct access customers in their countries, such “net ownership” is relatively small, and would be far smaller than Comsat's—as explained above. Moreover, some foreign Signatories, those with “deficit ownership” (*i.e.*, usage in excess of ownership) would clearly benefit from

¹⁷ Any losses associated with space segment ownership (in terms of reduced returns through lower IUCs) would be offset by gains associated with foreign PTT Signatories “use” of the same space segment in the provision of their own retail services (*i.e.*, what they lose as “owners” they would gain as “users”). (See detailed discussion of INTELSAT's IUC mechanism in Section V. below).

lower IUCs.¹⁸ As a consequence, the major, overall loser from low IUCs would be Comsat—the sole pure-play INTELSAT investor.

The prospect of large potential gains concentrated among a handful of large direct access customers—the U.S. carriers—at the expense of the uniquely-situated investor Comsat, creates a considerable risk that the carriers could convince enough foreign Signatories to outvote Comsat and reduce IUCs. The sizable gains to carriers would allow them, if necessary, to compensate foreign Signatories for any small losses they might incur by adopting non-compensatory IUCs. Arranging such compensation would be especially easy for U.S. carriers, given their close links with foreign Signatories as correspondents for completing international calls and as co-owners in international cable systems. Indeed, compensation could take the form of simply diverting more traffic to such jointly owned facilities from third-party facilities.¹⁹

Alternatively, compensation may involve diverting traffic from third-party facilities to INTELSAT in exchange for, or as a result of, lowering the IUCs. In fact, some foreign Signatories with sufficient market power to appropriate at their foreign end part of the U.S. carriers' direct access gains may even have independent incentives to reduce IUCs at Comsat's expense. (This point relates to the perils of one-sided liberalization in telecommunications, and recurs in Section VI.)

To avoid the competitive distortions that would be associated with below-cost access to Comsat's share of INTELSAT space segment, the FCC would have to monitor and police

¹⁸ This is because the IUCs are a "net cost" to Signatories with "deficit ownership"—but only to the extent that INTELSAT utilization exceeds ownership (see discussion in Section V.).

¹⁹ In a matter closely related to this point, the Commission already noted in its *1984 Direct Access Order* (at 64) the concern that direct access would enable AT&T to "bias investment and circuit utilization decisions in favor of one medium over the other [and that] the Commission would have less effective and timely means of monitoring and curbing AT&T should it attempt to engage in anti-competitive practices with respect to space segment utilization and control."

against such behavior—and stand ready to change the direct access surcharge, should IUCs be manipulated in this fashion. This alone reduces the seeming simplicity, and hence the superficial appeal, of direct access.

D. MAINTAINING AN IUC STRUCTURE THAT UNDER-PRICES CERTAIN SERVICES

The regulatory problem of guarding against below-cost access to INTELSAT space segment would be even worse, because one must police not only the average level of IUCs but also their relative *structure*. Given INTELSAT's intergovernmental nature, and that IUCs are still largely irrelevant in telecommunications markets today (because they are largely transfer payments for vertically integrated Signatories), the structure of IUCs is unlikely to be compatible with the structure of competitive market prices. For example, even when ignoring the level of the IUCs relative to Comsat's rates, a simple comparison of Comsat's rate structure with the structure of IUCs raises concerns that INTELSAT's IUC structure is too flat—offering insufficient discounts for long-term commitments, while under pricing short-term usage.²⁰ Today, U.S. carriers cannot exploit such mis-pricing, because they face not the IUC structure but Comsat's rate structure, which—because Comsat has to compete directly with its customers' choice of alternative facilities—must be considerably more market-oriented. But if direct access were introduced with a seemingly-adequate *uniform* surcharge over all IUCs, carriers would flock to the underpriced short-term and other services.

INTELSAT may not correct the IUC structure to prevent such an outcome. First, even if Signatories wish to do so, establishing a market-oriented IUC structure would take time. Second, Comsat would be the only real loser if the situation were not corrected: as explained, low IUCs impose little harm on foreign Signatories, and could actually benefit them if U.S.

²⁰ The difference in rate *structure* also helps explain occasional significant difference between IUCs and Comsat rates referenced in the *Notice* at 45.

carriers share with them (or these Signatories could otherwise appropriate) some of the direct access gains the carriers would obtain at Comsat's expense. Finally, some foreign Signatories (*e.g.*, those with direct ownership interests in competing cable systems) may not have the same degree of commitment to INTELSAT as Comsat—the only pure-play investor in INTELSAT. Foreign Signatories' incentives are more mixed. This is because of their dual role (1) as owners of alternative facilities to INTELSAT, notably undersea cable systems; and (2) as “users” of international facilities in their provision of retail services (*i.e.*, the carriers may gain from shifting their own traffic from INTELSAT to other alternatives).²¹

In short, setting a “correct” IUC structure to avoid potential mispricing of individual services and the consequent effects on competition would be a real concern in a U.S. direct access world. Inherent adjustment lags, as well as mixed incentives by foreign Signatories, are likely to prevent timely corrections. It would then be left for the FCC to determine *differential direct access surcharges* for different services to offset deficiencies in the IUC structure. Regulating such a surcharge structure would add further complexity to the already daunting regulatory task of establishing a correct average surcharge today and policing it against possible anticompetitive manipulation of IUC levels. As explained below, given the imminence of full privatization in the absence of direct access, introducing direct access is a rather costly remedy in the U.S. for an intergovernmental structure that is about to change radically.

²¹ In fact, many of these “mixed” incentives are likely to be closely aligned with those of the U.S. retail carriers—which own submarine fiber optic systems jointly with the foreign Signatory-carriers and which, through their ownership in fiber, also are Comsat's direct competitors.

IV. CONCERN 3: DELAYED OR SKEWED PRIVATIZATION

For the above reasons, direct access in the U.S. will create a powerful new constituency, consisting of U.S. companies many times the size of Comsat that stand to reap substantial windfalls at Comsat's expense by exploiting below-cost access to INTELSAT. These large direct access customers would have a strong vested interest either in introducing new issues that could delay reforms to the current cooperative structure or in resisting (or skewing) privatization²²—since below-cost access is unlikely to be voluntarily available from a fully privatized INTELSAT. The prolonged mispricing of INTELSAT space segment under U.S. direct access would also distort both intramodal and intermodal competition. Most importantly, however, there should be no doubt that delaying INTELSAT privatization would cause costly delays in achieving privatization-related efficiency gains.

The *Notice* specifically questions the ability of Level 3 direct access customers to affect INTELSAT policies, as they would have no role in governance.²³ However, this focus on the lack of a *formal* role in INTELSAT governance is unrealistically narrow for several reasons as discussed below. After all, because the U.S. carriers would become INTELSAT's largest direct contractual customers and could reasonably be expected to use their bargaining power to get the lowest possible IUCs. Even more importantly, these customers could significantly delay or skew INTELSAT restructuring. Moreover, allowing INTELSAT to have direct access to the U.S. market before privatization could reduce the incentives of INTELSAT and foreign Signatories to support privatization if, as discussed above, INTELSAT were able to compete in the U.S. with its tax exemptions (and other advantages) and at rates that are non-compensatory to Comsat.

²² The *Notice* (at 59) specifically requests comments on how implementing direct access in the U.S. might impact the U.S. objective for a privatized INTELSAT.

²³ *Notice* at 59.

A. U.S. DIRECT ACCESS CUSTOMERS WOULD HAVE CONSIDERABLE INFLUENCE

Large U.S. direct access customers would hold considerable sway over foreign Signatories, because—as explained earlier—they have close business relationships, share ownership of alternative facilities to INTELSAT, and therefore could share with them the gains from underpaying for Comsat's past investment.

The focus on the absence of voting rights for U.S. users of INTELSAT under Level 3 direct access also ignores the important fact that the U.S. carriers will be entering into capacity contracts with INTELSAT and, thus, become by far its largest customers.²⁴ Regardless of whether or not the carriers would have voting rights on INTELSAT's board, as the largest INTELSAT customers they would have negotiating power with INTELSAT's management and, thus, be able to influence privatization or other restructuring outcomes. Such influence is considerably more attenuated today, since U.S. carriers do not purchase from INTELSAT directly, but instead must purchase from Comsat.

Moreover, the large U.S. direct access customers would surely command considerable influence over the political process in the U.S. relating to INTELSAT's privatization. They would form a potent political force, and could join forces to influence privatization efforts. In fact, the major U.S. carriers already have been supporting legislation that the Administration has concluded is both counter-productive to the privatization effort and anti-competitive.²⁵ Having secured overly generous terms under direct access prior to privatization, they could demand that privatization be made contingent on their continuing

²⁴ Indeed, the three major U.S. carriers would account for significantly more direct INTELSAT utilization than the total utilization accounted for by any other country.

²⁵ *Administration Views on S. 1328 H.R. 1872*, attached to Testimony of Ambassador Vonya B. McCann, United States Coordinator - International Communications and Information Policy, before the Subcommittee on Communications, Senate Committee on Commerce, Science and Transportation, September 10, 1998.

to receive such terms; their political leverage could hold sway even if Comsat and others opposed such sweetheart deals. Their arguments would, of course, be couched as wanting the "right kind" of privatization. However, the scope for influence is clear: once created, an interest group with large economic stakes is hard to ignore.²⁶

B. COMSAT'S INFLUENCE WOULD BE DIMINISHED

Comsat's influence over INTELSAT management obviously would be diminished once major U.S. customers could access INTELSAT directly. But privatization prospects could suffer for yet another reason: non-compensatory prices to direct access customers could make it too costly for Comsat to maintain its investment share in INTELSAT. A reduction in Comsat's ownership share would occur automatically under Level 4 direct access; but the above analysis suggests that, under Level 3, Comsat might need to reduce its ownership (*e.g.*, the surplus ownership it currently holds on behalf of non-U.S. INTELSAT users), given the high costs that a non-compensatory IUC return could impose on Comsat if a significant portion of its current business shifted to direct access.

It is imperative not to lose sight of Comsat's central guiding role in bringing about efficient privatization—that is why a reduction in its ownership or influence would be so detrimental to privatization efforts. Comsat plays a pivotal role in maintaining the momentum for privatization, often against strong opposition from competitors and other Signatories. Comsat plays this critical role because it holds by far the *largest investment share*, and because it is the *only pure-play INTELSAT investor*. Its interests are therefore intimately aligned with seeking a successfully privatized INTELSAT. By contrast, foreign Signatories'

²⁶ Additionally, with respect to requests for comments on competition matters (*Notice* at 56-58) one also needs to note that Comsat's customers also own and operate international fiber-optic cable systems in direct competition to Comsat and INTELSAT. By increasing the influence of cable-owning carriers over INTELSAT or by making access to INTELSAT space segment available at below-cost rates, direct access in the U.S. could thus also diminish or distort intermodal facilities-based competition. This is in stark contrast to abroad, where direct access gives the PTTs' emerging local competitors the only real alternative to Signatory-controlled service (see Section VI.B.).

motives are more mixed, given their role as owners and vertically-integrated users of INTELSAT, as well as their ownership interests in alternative facilities to INTELSAT. The role of large, non-conflicted investors is widely recognized as critical to monitoring management and to effecting organizational change,²⁷ and INTELSAT's case is no exception. Diminishing Comsat's role would, thus, have an disproportionately negative effect on the momentum that currently exists for the rapid, pro-competitive privatization of the remaining INTELSAT organization.

C. DIRECT ACCESS TO THE U.S. WILL DISTRACT INTELSAT MANAGEMENT AND FOREIGN SIGNATORIES FROM THE PRIVATIZATION PROCESS

Finally, and significantly, direct access to the U.S. will distract both INTELSAT management and foreign Signatories from pursuing privatization. INTELSAT management will likely be sidetracked by the influence and demands of the large U.S. direct access customers—which (as discussed above) likely have a greater interest in achieving direct access at ever more favorable terms than in rapid, pro-competitive privatization. Moreover, even setting aside the U.S. carriers' influence, INTELSAT management would likely be diverted from aggressive pursuit of privatization towards efforts targeted at establishing INTELSAT's direct market presence in the U.S. Importantly, however, under-priced U.S. direct access to INTELSAT would provide incentives for foreign Signatories to enter the U.S. market as facilities-based carriers—or, in the case of several foreign Signatories already operating as U.S. facilities-based carriers, expand in the U.S. market—and inefficiently pursue their U.S. activities as INTELSAT direct access customers at Comsat's expense. Similarly to U.S. carriers, these Signatories might then have added incentives to delay or skew the privatization process.

²⁷ For example, see Andrei Shleifer and Robert W. Vishny, "Large Shareholders and Corporate Control," *Journal of Political Economy*, 1986, vol. 94, no. 3, pp. 461-488.

The availability of direct access to the U.S.—the world’s largest telecom market—is also likely to make INTELSAT’s intergovernmental structure significantly more attractive from the perspective of many foreign Signatories. This, in turn, would make alternative INTELSAT restructuring options other than full privatization—such as a “commercialized” intergovernmental organization (IGO)—appear more feasible as a long-run solution. These alternatives to privatization would likely become a more important subject matter to be discussed in INTELSAT’s quarterly board meetings and, thus, take focus and momentum away from the privatization effort. Importantly, a more viable “commercialized IGO” would be quite attractive to some foreign Signatories who fear that a privatized INTELSAT could pose a direct competitive threat to their international retail services—or (as a more efficient carriers’ carrier) threaten them indirectly by facilitating more competition from other retail carriers. Thus, the feasibility of a commercialized IGO with direct access to U.S. markets could sway many foreign Signatories to oppose further privatization altogether. We, thus, can only agree with the Administration’s witness on H.R. 1872 who testified:

If we can be successful in implementing privatization of INTELSAT, there is little reason to be distracted by introducing new access regimes. This is especially the case if, as seems likely, with either direct access or multiple signatories we would be inviting foreign-owned entities to enter the U.S. marketplace thereby reducing further their incentives to support a more general global pro-competitive outcome via INTELSAT privatization.²⁸

In sum, prospects for a rapid and pro-competitive privatization—not skewed to favor any particular interest group—would suffer if direct access were introduced while privatization is otherwise within reach. The likely decrease in Comsat’s influence, whether or not accompanied by a decrease in its ownership share, would mean a correspondingly increased role not only for direct access customers less supportive of privatization, but also for some foreign Signatories whose interests in a pro-competitive privatization are tainted by their ownership of competing facilities and their vertical integration into retail services.

²⁸ Testimony of Mr. Jack A. Gleason before the House Subcommittee on Telecommunications, September 30, 1997 (on behalf of all Executive Branch agencies involved in restructuring of the intergovernmental satellite organizations).

V. COMSAT'S COSTS, TODAY'S IUC, AND THE NEED FOR A SURCHARGE

The *Notice* requested comments on a number of matters associated with INTELSAT Utilization Charges, the implicit return the IUC mechanism provides to Signatories, and the level of IUCs compared to Comsat's rates and actual costs.²⁹ A thorough understanding of these matters is thus critical to the objective assessment of direct access in the U.S. and its implications for Comsat. An analysis of these matters reveals that:

- The IUCs are not the “cost” or “price” of Signatories’ utilization of INTELSAT space segment—the IUCs only provide an “accounting rate” for the portion of INTELSAT space segment that an entity utilizes but does not own. However, because Signatories generally utilize what they own, the overall level of the IUCs is irrelevant for most Signatories.
- The return provided through the IUC mechanism is significantly below the return that private, tax-paying entities—such as Comsat—require as fair compensation for their investment.
- A direct access surcharge over the IUCs would be needed to make up the shortfall in IUC return and to allow Comsat to recover additional expenses (including “top-off” insurance and statutorily-required U.S. Signatory functions) that it would continue to incur on behalf of direct access customers.
- The difference between Comsat’s rates and the IUCs does not represent Comsat’s “margin.” Once the true cost of owning INTELSAT space segment is taken into consideration, Comsat’s “margins” do not reflect

²⁹ For example, see *Notice* at 23, 47 and 48.

supra-competitive profit; in fact, they are fully in line with the “margin” that the Satellite Users Coalition holds out to be a competitive benchmark.

A. THE IUCs AND THEIR LIMITED RELEVANCE TO SIGNATORIES

The IUCs and associated INTELSAT accounting procedures are among the most misunderstood concepts in past and current discussions involving international telecommunications. Contrary to common belief, the IUCs are not the “cost” or “price” of INTELSAT space segment service to Signatories, nor does INTELSAT’s IUC mechanism generally provide the return on Signatories’ investment. Because the IUC mechanism and INTELSAT’s financial structure are so unique, they require brief explanation.³⁰

INTELSAT is a cost sharing cooperative that is generally managed by Signatories as an integral part of their business, not an outside supplier of space segment. The IUCs and related accounting procedures are part of that cooperative arrangement. Today’s IUCs vary across different types and terms of service. They are set at a level to recover on average:

- “INTELSAT O&M” costs (including A&G and interest on debt);
- Repayment of Signatory capital (*i.e.*, depreciation); and
- A target (pre-tax) return for the use of Signatories’ equity capital.

However, *specifically not included* in IUC determinations³¹ are: (1) Signatories’ corporate tax liabilities; (2) any direct costs that Signatories incur in performing their INTELSAT

³⁰ A more detailed description of the IUC mechanism and its relevance to Signatories can be found in Jerry R. Green and Brattle/IRI, *An Economic Evaluation of Direct Access to the INTELSAT System by U.S. Telecommunications Customers*, October 1995 (“1995 Direct Access Study”), Appendix A.

³¹ See also INTELSAT *Operating Agreement*, Article 11.

Signatory and customer service functions; and (3) indirect costs associated with Signatories' investment and operating liabilities. Importantly, as explained in detail in Section B below, the IUC-provided "return" clearly does not offer an adequate return on investment for private, taxable Signatories such as Comsat.

The role of IUCs as accounting rates for imbalances in Signatories' ownership and utilization shares only becomes obvious if discussed in the full context of other INTELSAT accounting procedures. Despite the fact that Signatories finance INTELSAT's assets, Signatories also are obligated to pay to INTELSAT (based on actual utilization) the full IUC charges, including the IUCs' capital components. However, every quarter INTELSAT's total revenues from utilization charges, net of INTELSAT O&M, are redistributed back to its Signatories in proportion to their investment shares. Thus, *if a Signatory's ownership share equals its utilization share, the level of the IUC's does not matter*—the difference between a Signatory's IUC payments and its share of INTELSAT's distribution of *net revenues* is an amount equal to the Signatory's share of INTELSAT O&M.

At the time of the quarterly revenue distributions, INTELSAT "capital calls" (if any) are also due. These "capital calls" are INTELSAT investment requirements pro-rated according to Signatories' ownership shares. Importantly, this investment obligation depends on Signatories' ownership share without regard to the extent to which individual Signatories would benefit from (or even agree to) specific investment projects approved by the INTELSAT Board of Governors. Once a year, INTELSAT also adjusts Signatories' ownership shares (*i.e.*, transferred among Signatories at INTELSAT book value) to reflect the previous six months' utilization share. Signatories are obligated to adjust their ownership shares, unless particular Signatories bilaterally agree to maintain exactly off-setting imbalances. Ownership-utilization imbalances are, thus, mostly small and temporary.

INTELSAT's distribution of *net revenues* can be viewed as the distribution of a Signatory's ownership share of *total revenues* and the simultaneous collection of a Signatory's ownership

share of INTELSAT O&M. If the difference between a Signatory's (utilization-based) IUC payments and (ownership-based) distribution of INTELSAT's total IUC revenues is defined as "INTELSAT Net" (which is in fact the term reflected in Comsat's books), a Signatory's quarterly payment obligations can be stated as:

- + IUC payments (based on utilization);
- Distribution of total IUC revenues (based on ownership);
- = INTELSAT Net;
- + INTELSAT O&M (based on ownership);
- + INTELSAT Capital Calls (*i.e.*, ownership-based investment obligations).

This perspective on Signatory payment and revenue streams is key to understanding the implications on the IUC mechanism. Observe that the IUCs enter a Signatory's costs only through "INTELSAT Net." *As long as a Signatory's utilization is equal to its ownership, INTELSAT Net will be zero.* If a Signatory's utilization exceeds its ownership, however, INTELSAT Net will be a net expenditure, representing a payment to others for the fraction of INTELSAT assets utilized but not owned. Similarly, for a Signatory with ownership in excess of utilization, INTELSAT Net will be a net revenue, representing a contribution from others to the costs associated with the portion of space segment owned but not utilized by the Signatory.

Thus, while it is true (in the literal sense) that "[t]he IUC is the rate Signatories pay INTELSAT for the use of space segment,"³² it is also clear that INTELSAT's operation as a cost-sharing cooperative makes the IUCs largely irrelevant to the actual costs faced by the Signatories. The only ultimate effect of INTELSAT's IUC mechanism is to create accounting rates for imbalances in utilization and ownership among INTELSAT users. Absent such imbalances, Signatories' pure INTELSAT *space segment* costs are, thus, equal

³² Notice at 45.

to (1) Signatories' capital costs associated with their cumulative INTELSAT investment (including depreciation, interest, taxes, and return on Signatory equity capital); and (2) Signatories' share of INTELSAT O&M. In addition to space segment costs, of course, Signatories will also have to recover costs associated with their Signatory and customer service functions. For Comsat, these Signatory functions are required by law and are unavoidable costs it should be entitled to recover from all U.S. users.

The limited relevance of the IUCs is also evident in the composition of Comsat's historic revenue requirements (*i.e.*, the total cost of service for which recovery was allowed under rate-of-return regulation):

- Comsat-internal Expenses (INTELSAT Affairs, Engineering and Operations, Sales and Marketing, R&D, Finance, Legal, Corporate);
- Depreciation Expenses (related to Comsat's investment in INTELSAT);
- Return on Investment (on Comsat's INTELSAT-related ratebase);
- U.S. Taxes;
- Comsat's portion of INTELSAT O&M costs;
- INTELSAT Net (IUCs minus Revenue Distributions).

Again, IUCs enter only through the INTELSAT Net item and, therefore, only to the extent that there are ownership-usage imbalances. The IUCs assume no economic significance for INTELSAT's Signatories, if their INTELSAT utilization is equal to their ownership. Because the difference between Signatories' utilization and ownership shares generally is very small and only temporary, the average level of the IUCs is largely irrelevant with respect to determining the true cost incurred by a Signatory for its INTELSAT space segment.

B. THE TRUE RETURN PROVIDED THROUGH THE IUC MECHANISM

Direct access at the IUCs raises the immediate question of whether the “return” provided through INTELSAT’s IUC mechanism would be sufficient to provide fair compensation for Comsat’s costs associated with U.S. direct access customers.³³ To answer this question, it is critical to understand what INTELSAT’s “return” actually represents and this return’s implication for the average compensation Comsat would receive from Level 3 direct access customers through the IUC mechanism. In this regard, the *Notice* states that:

[a] Signatory permitting Level 3 direct access will earn a return on its investment in space segment capacity used by a Level 3 customer [in the] range of 17-21 percent. . . . During 1997, the actual return on shareholders’ invested capital was approximately 18 percent. . . .³⁴

This interpretation of INTELSAT’s return, however, is entirely inconsistent with the U.S. common usage of the term “return on investment.” The misinterpretation is largely rooted in the misreading of INTELSAT’s financial statements and the implications of INTELSAT’s unique status as a cost-sharing cooperative. To illustrate the true “return on investment” that Comsat receives through INTELSAT’s IUC mechanism, we analyze it from three perspectives: (1) the return on Signatory equity; (2) the return on total capital; and (3) the return on net plant. While the magnitude of these “returns” differs greatly, the consistent general result is that the IUC mechanism today falls short of providing a sufficient return on the investment that Comsat would hold on behalf of U.S. direct access customers.

Return on Signatory Equity. The INTELSAT “return” most frequently referred to is what INTELSAT calls the “rate of compensation (return) on shareholders’ invested capital” which,

³³ For example, see *Notice* at 23, 47, and 48.

³⁴ *Notice* at 9 and fn 23.

as recognized in the *Notice*, amounted to approximately 18 percent in 1997.³⁵ This term does not represent what “return on shareholders’ capital” would commonly be understood to mean in the U.S. In particular, this return is only a return on the book value of Signatories’ *equity* investment in INTELSAT and, for taxable Signatories such as Comsat, only a *pre-tax* return on the book value of invested equity. INTELSAT calculates this return by dividing its “Revenues over expenses” (which, in U.S. accounting terms, would be the equivalent of “earnings before taxes”) through the book value of INTELSAT’s “Shareholder’s equity.”³⁶ At a 39 percent corporate tax rate, this 18 percent pre-tax return on the book value of Signatories’ equity translates to an *after-tax return of only 11.0 percent on book equity* for Comsat. In comparison, for example, the (after-tax) return on book equity for the *Value Line* composite of established U.S. telecommunications services companies has been approximately 27 percent.³⁷ For AT&T, the return on book equity has been 19.7 and 27.6 percent for 1997 and 1996 and is forecast by Value Line to average 18.0 percent from 2001 through 2003.³⁸ The 1996 return on book equity for Hughes’s Galaxy business (a mature satellite system with a vintage of assets similar to that of INTELSAT’s) was 18.7 percent.³⁹

INTELSAT’s return on shareholder equity can also be compared to the return on equity required in financial markets. Because the market value of companies’ equity generally

³⁵ INTELSAT 1997 Annual Report, p. 37 (Note 8); *Notice*, at fn 23.

³⁶ According to INTELSAT’s “Statement of Operations” its “Revenues over expenses” amounted to \$367 million in 1997; INTELSAT’s balance sheet lists “Shareholders’ equity” as \$2,037 million for year-end 1997 (INTELSAT 1997 Annual Report, pp. 26-27). (Note, however, that INTELSAT appears to calculate this return based on average-year equity, not the end-of-year equity values reported in its annual financial statements.)

³⁷ *Value Line*, October 9, 1998, p. 735. The *Value Line* return on book equity for the composite telecommunications services industry for 1996 and 1997 was equal to 26.8 and 27.5 percent respectively. For the years through 2003, *Value Line* forecasts that return at 28 percent.

³⁸ *Value Line*, October 9, 1998, p. 737.

³⁹ *PanAmSat 1997 Annual Report* lists Galaxy’s 1996 net income as \$149.8 million and its 1996 stockholders equity at \$802.1 million.

exceeds the book value of equity, the return on book value exceeds the return on the market value of equity. For companies of average market risk, the required market return on equity is 13.9 percent.⁴⁰ The satellite industry is riskier than the average equity market and, thus, requires a higher return on equity.⁴¹ For example, *Value Line*'s "beta" (a standard measure of relative market risk) for Comsat is 1.10,⁴² indicating that Comsat is exposed to approximately 10 percent more risk than the market on average. This implies that the financial markets' required return on equity is about 14.7 percent for Comsat.⁴³ Thus, even the required return on the *market value* of equity is significantly above the 11.0 percent return that Comsat would receive through the IUC mechanism.

Return on Total Capital. A financial ratio frequently relied on by investment analysts is the "return on total capital." This ratio generally is calculated as the total payments to investors (*i.e.*, net income plus interest payments) divided by the sum of invested equity and debt capital. The return on total capital for the *Value Line* composite of mature U.S. telecom companies has been 15.1 and 15.5 percent for the last several years and is forecast by *Value Line* to continue at an average of 16.0 percent through 2003.⁴⁴ In 1996, Hughes' Galaxy

⁴⁰ Ibbotson Associates, *SBBi 1998 Yearbook*, p. 165.

⁴¹ The average U.S. telecommunications service company is less risky than the satellite services industry. In fact, many U.S. telecommunications service companies, such as most local exchange carriers, are less risky than the average market.

⁴² *Value Line*, October 9, 1998, p. 748.

⁴³ This estimate is based on the application of the so-called "capital asset pricing model" (CAPM), which states that the required return is equal to the sum of the "risk free rate" (*i.e.*, the yield of government bonds) plus the product of "beta" and the "market risk premium" (*i.e.*, the difference between market returns and government bond yields). At a market return of 13.9 percent and a medium-term government bond yield of 5.7 percent, Comsat's required return of equity is equal to $14.7\% = 5.7\% + 1.10 \times (13.9\% - 5.7\%)$. (For further discussion, see Ibbotson, *SBBi 1998 Yearbook*, pp. 152-154, 165; and Brealey & Myers, *Principles of Corporate Finance*, 5th Edition, Chapter 8, McGraw Hill, 1996.)

⁴⁴ *Value Line*, October 9, 1998, p. 735.

business returned 18.7 percent on total capital.⁴⁵ AT&T return on total capital was 15.5 and 20.4 percent for 1997 and 1996 and is forecast at 15.5 percent through 2003.⁴⁶

Because INTELSAT's debt is guaranteed by its Signatories and (on a proportionate basis) is also carried on Comsat's own balance sheet, the return on total capital also is a very useful measure for assessing the true return on investment provided through the IUC mechanism. As noted, INTELSAT's 1997 "revenues over expenses" amounted to \$367.1 million. Interest payments were \$76.4 million, year-end "Signatories' equity" amounted to \$2,037 million, and long-term debt totaled \$950 million. At Comsat's 39 percent marginal tax rate, the IUC mechanism provided an after tax *return on total capital equal to only 10.1 percent*⁴⁷—again, significantly below the average for the U.S. telecom sector.

Return on Net Plant. A closely-related statistic is the return on the net book value of plant in service. In a market environment, the concept of "return on net plant" provides a useful gauge to assess the overall adequacy of investment returns for mature companies with a similar vintage of assets. It is also closely related to the familiar regulatory concept of the "return on ratebase."

INTELSAT's 1997 return on net plant⁴⁸ can be calculated as the total payment to investors (the sum of \$367.1 million in "revenues over expenses" and \$76.4 million in interest expenses on the debt-financed portion of INTELSAT assets) divided by \$ 3.276 in *net book*

⁴⁵ *PanAmSat 1997 Annual Report*. Note that Galaxy's capital structure did not include debt financing; thus, its return on total capital was equal to its return on equity (calculated above).

⁴⁶ *Value Line*, October 9, 1998, p. 737.

⁴⁷ $[\$367.1 \times (1-0.39) + \$76.4] / (\$2,037 + \$950) = 10.1\%$

⁴⁸ Note that INTELSAT specifically calculates a related ratio: the (pre-tax) "return on average total assets (before interest)," which amounted to 12.6 percent in 1997. (*INTELSAT 1997 Annual Report*, p. 39).

value of INTELSAT's total plant in service.⁴⁹ After adjustment for Signatories's tax obligations, INTELSAT's IUC mechanism provided a *return on net plant of only 9.2 percent*.⁵⁰ In contrast, the return on net plant for the *Value Line* composite of U.S. telecommunications companies has been exceeding 14 percent⁵¹—in line with the 14.4 percent 1996 return on net plant for Hughes's Galaxy satellite system.⁵² The 9.2 percent IUC-provided return is also significantly less than the 11.48-12.48 percent return the Commission historically allowed on Comsat's ratebase.

Additional Return-related Considerations. The above analysis of accounting returns makes it quite obvious that the IUC-provided return alone does not adequately compensate Comsat for its INTELSAT investment costs. However, the above analysis of IUC returns still overstates the true return that INTELSAT's IUC mechanism provides to Comsat for three reasons. First, the simple return calculations discussed above are not adjusted for the fact that INTELSAT's books do not conform entirely with U.S. accounting conventions. For example, because INTELSAT historically did not fully insure satellites and did not capitalize interest during construction, INTELSAT's asset values have been understated relative to U.S. accounting conventions. As a result, true returns will be less than even the returns calculated above.

Second, the direct access-related payments that Comsat would receive through INTELSAT's IUC mechanism would be significantly delayed and not be concurrent with direct access

⁴⁹ *INTELSAT 1997 Annual Report*, pp. 26-27.

⁵⁰ $[\$367.1 \times (1-0.39) + \$76.4] / \$3,276 = 9.2\%$

⁵¹ *Value Line*, October 9, 1998, p. 735 (derived from return on total capital, total capital, and net plant data). The *Value Line* return on net plant for the composite telecommunications services industry for 1996 and 1997 was equal to 14.03 and 14.12 percent respectively. For the years through 2003, *Value Line* forecasts that return at 14.90 percent.

⁵² *PanAmSat 1997 Annual Report*. Galaxy's 1996 total payments to investors was \$149.8 million; the net book value of its "satellites and other property and equipment - net" and "Net investment in sales-type leases" was equal to \$1.041 million.

customers' IUC payments. Currently, payments for space segment utilization by U.S. customers are made directly to Comsat on a monthly basis. Payments to INTELSAT, however, are due only quarterly and collected only about three months after the quarter in which space segment is utilized. As a result, under direct access Comsat would no longer receive payments directly from its customers, but months later through the IUC mechanism (*i.e.*, INTELSAT distributes IUC revenues payable in a particular quarter only at the end of the following quarter). Moreover, because INTELSAT adjusts ownership shares only in March of every year (and only based on utilization shares measured over the last six months), direct access customers' payments for U.S. space segment might not be fully reflected in INTELSAT's revenue distributions until the next ownership adjustment. In the case of occasional-use or short-term service, direct access customers's payments might not be fully reflected in revenue distributions unless space segment was utilized during the six months (September through February) over which utilization shares are determined. The potentially significantly delayed and only weakly usage-based cash flows provided through the IUC mechanism would impose additional costs on Comsat (such as increased working capital requirements) and, thus, further diminish the direct access-related value of IUC returns.

Finally, the above comparison of returns ignores the investment obligations and limited liquidity faced by INTELSAT Signatories relative to investors in other telecommunications companies.⁵³ For example, essentially all of INTELSAT's capital requirements for the design, development, and establishment of the INTELSAT space segment are funded through mandatory "capital calls" made to the Signatories. These capital calls are in the order of hundreds of million of dollars each year and are assessed in proportion to each Signatory's investment share—whether or not individual Signatories benefit from the investment. Investors in publicly-traded companies face no such investment obligation and do not have to bear the associated costs.

⁵³ For a discussion of INTELSAT Investment Responsibilities see also *1995 Direct Access Study*, pp. 10-11

Similarly, INTELSAT Signatories face severe restrictions on their ability to buy or sell their investment shares. Signatories, for example, simply do not have the option to “get out” of the INTELSAT business and sell their investment if the economic prospects of the organization should turn against them. Moreover, when INTELSAT determines system utilization shares, Signatories are obligated either: (1) to buy or sell ownership share so that ownership and utilization shares are aligned; or (2) to coordinate with other Signatories to maintain off-setting discrepancies in ownership and utilization shares. In addition, any such adjustment of ownership share occurs at INTELSAT’s book value. As a result, this arrangement clearly constrains the liquidity of Signatories’ investments. Finally, Signatories are jointly and individually liable for the entire INTELSAT system—which could potentially expose Signatories well beyond their INTELSAT investment. Clearly, investors in publicly-traded companies do not face such constraints and liabilities.

All else equal, these obligations, constraints, and liabilities increase the investment costs of Signatories above the costs faced by investors in other telecommunications companies. The shortfall in the IUC-provided return to INTELSAT Signatories, and in particular to Comsat, is thus greater than quantified above.

C. THE NEED FOR A DIRECT ACCESS SURCHARGE

As the U.S. Signatory to INTELSAT, Comsat would continue to perform a number of functions and incur a number of costs on behalf of U.S. direct access customers. If Level 3 direct access customers only had to pay the IUC, they would not only short-change Comsat from a return-on-investment perspective, but they would also free-ride on the functions that Comsat would continue to perform on their behalf. Thus, if direct access were to be made available to U.S. customers, a surcharge for direct access over and above INTELSAT’s IUCs would be necessary to give Comsat a fair chance to recover all direct access-related costs.

including investment costs.⁵⁴ As discussed below, Comsat quantified this surcharge to be at least 28.67 percent of direct access customers' IUC payments.

Shortfall in Investment Returns. With respect to Comsat's return on its space segment investment, we have already documented the shortfall of IUC-related returns. The significance of this shortfall cannot be underestimated. Because of U.S. corporate income taxes and the fact that the net book value of INTELSAT's plant in service is over three times its annual revenues, a 10 percent increase in IUC revenues would only result in an approximately 1.8 percentage point increase in the (after-tax) return on net plant that Comsat would receive through the IUC mechanism.

For example, to move the 1997 return on *net plant* from 9.2 percent (*i.e.*, the true return provided through the IUC mechanism today) to 14 percent (*i.e.*, the average return on net plant for the *Value Line* composite of U.S. telecommunications services companies), INTELSAT's total 1997 "Revenues over expenses" would have to increase from \$367 million to \$617 million⁵⁵—an increase of \$250 million. To make up for this shortfall—and considering total 1997 INTELSAT IUC revenues of \$962 million—a surcharge of 26 percent would be needed over and above today's IUCs.⁵⁶ Importantly, this calculation does not even include a premium that investors would require for the unusual investment obligations and liquidity restrictions faced by INTELSAT's Signatories.

The return on investment realized on the portion of Comsat's space segment utilized by direct access customers should be expected, on average, to be at least equal to the 12.48 percent return on ratebase that Comsat was allowed to earn under rate of return regulation

⁵⁴ The *Notice* (at 47) requests Comsat to specify the magnitude of expenses incurred in addition to the IUC.

⁵⁵ $[\$617 \times (1 - 0.39) + \$76.4] / \$3,276 = 14\%$

⁵⁶ $(\$250 / \$962) = 26\%$

prior to the Commission's *Comsat Non-dominance Order*. To make up the shortfall in Comsat investment returns that would be provided through the IUC mechanism, Comsat determined that an *18.23 percent surcharge* over the IUCs would be necessary.⁵⁷ Comsat also shows that this surcharge would have to be considerably higher, if Comsat were to earn a return similar to the investment returns of other U.S. carriers as reported by the FCC.

Insurance and Signatory Expenses. In addition to an allowance for the shortfall in the IUC-provided return, a direct access surcharge would also have to allow recovery of other expenses that Comsat would continue to incur on behalf of direct access customers. At the minimum, these additional costs include the amortization of capitalized "top-off" insurance for INTELSAT space segment and the direct administrative costs associated with Comsat's Signatory functions.

Comsat traditionally has purchased space-segment insurance on its own because, until very recently, INTELSAT did not fully insure total satellite deployment costs.⁵⁸ The costs associated with satellite launch or in-orbit failures are a standard cost of doing business in the satellite industry—if not borne and recovered as insurance expenses, these costs would still have to be borne in the form of "self insurance" and recovered through a higher profit on successfully launched and operated satellites. If this exposure were left uninsured by Comsat, losses associated with uninsured portions of INTELSAT's space segment would reduce the IUC-provided return even further.⁵⁹ Because Comsat insured its INTELSAT

⁵⁷ *Affidavit of Theodore W. Boll.*

⁵⁸ The uninsured portion included post-separation satellite insurance, interest expenses during construction, and the insurance premium itself (which would also be "lost" in a launch failure and would have to be paid again for the replacement satellite).

⁵⁹ For example, INTELSAT reported a 1996 return on Signatory equity of 20.2 percent. This return, however, does not consider a loss of \$25.6 million—the (uninsured) amount of the satellite's launch insurance—that INTELSAT had to recognize after the launch of the INTELSAT 708 satellite failed. If these losses were taken into consideration, INTELSAT's (pre-tax) 1996 return on Signatories' equity would only be about 18.8 percent, not 20.2 percent. Similarly, due to this loss, INTELSAT's

(continued...)

assets on behalf of all U.S. customers (including those customers who would switch to direct access), the recovery of Comsat's top-off insurance from direct access customers would still be necessary.

Other direct access-related costs that also would not be covered through the IUC mechanism include all administrative expenses associated with Comsat's statutorily-required Signatory functions. To ensure that INTELSAT serves U.S. customer and policy interests, Comsat actively participates in all aspects of INTELSAT planning and operations. In particular, Comsat must (1) participate in all INTELSAT governing functions and negotiate with other Signatories; (2) coordinate with the U.S. Executive Branch and the FCC on all INTELSAT matters; (3) forecast, coordinate, and secure space segment requirements of U.S. users; and (4) perform financial and technical analyses to assess INTELSAT satellite procurement and deployment plans, and the development of individual service offerings that are in the interest of U.S. customers.⁶⁰

Comsat has estimated that recovery of Signatory costs and insurance from direct access customers would require at least a 10.44 percent surcharge over and above the IUC,⁶¹ and in addition to the previously quantified surcharge covering the shortfall of IUC-related investment returns.

Other Difficult-to-Quantify Costs. There are also indirect costs associated with U.S. direct access that, if uncompensated, would increase the relative magnitude of costs that Comsat would need to recover from its remaining customers. For example, Comsat provides sales, billing, collection, marketing, technical support, and coordinating functions for many more

⁵⁹ (...continued)

stated 1996 return on total assets of 12.7 percent yielded an actual return of only about 12.0 percent.

⁶⁰ A more detailed discussion of Comsat's administrative Signatory functions can be found in the *1995 Direct Access Study*, pp. 8-9.

⁶¹ *Affidavit of Theodore W. Boll.*

customers than the number of entities with which INTELSAT currently is dealing directly. Under Level 3 direct access, such customer service functions presumably would be provided by INTELSAT. Without doubt, if a large number of U.S. customers switched to direct access, INTELSAT's costs associated with these functions would necessarily have to increase.⁶² At the same time, because serving a smaller number of customers would not proportionately reduce customer service costs, Comsat would lose some of the scale economies with which it can now provide these services.⁶³ In addition, as discussed in the *1995 Direct Access Study*, Comsat may (1) be exposed to direct access-related risks associated with a Signatory's operating and financial liabilities that would remain with Comsat;⁶⁴ and (2) have to modify the way it performs R&D activities and charge licensing fees for technologies based on R&D performed on behalf of its customers.⁶⁵ However, because measurement of these costs is inherently difficult and controversial, they have not been included in the quantification of direct access surcharges.

The Required Total Surcharge and Regulatory Implications. The total direct access surcharge needed to compensate Comsat fairly would be at least 28.67 percent of direct access customers' IUC payments. Not surprisingly, the Commission concluded in its *1984 Direct Access Order* that "the administrative fees that direct access customers are willing to pay [may not] adequately compensate Comsat for all the activities it legitimately undertakes as U.S. Signatory."⁶⁶ This magnitude of the surcharges necessary to recover the deficiency

⁶² Ironically, unless IUCs are increased, the additional INTELSAT costs would further reduce the return that Comsat could realize through the IUC mechanism. (See also *1995 Direct Access Study*, pp. 42-44).

⁶³ See, for example, *1995 Direct Access Study*, pp. 42-44.

⁶⁴ See *1995 Direct Access Study*, p. 13 and p. 22, fn 43.

⁶⁵ See *1995 Direct Access Study*, p. 14.

⁶⁶ *1984 Direct Access Order* at 68.

in IUC-provided investment returns and other direct access-related Comsat costs detailed above renders this conclusion easily understandable.

The Commission also recognized in 1984 that direct access “might require significant regulatory involvement to assure Comsat’s receipt of sufficient administrative fees to continue to meet its statutorily-imposed responsibilities.”⁶⁷ Clearly, the issues raised in the determination of the appropriate level of surcharge for direct access customers make evident that the very concept of direct access (at terms fair to Comsat) would be a throwback to the kind of cost-of-service regulation that the Commission found was no longer necessary for non-dominant carriers serving competitive markets.

D. COMSAT’S SURPLUS OWNERSHIP

The *Notice* poses the question of why direct access should raise concerns about cost recovery given that Comsat has been willing to hold surplus ownership on the INTELSAT system.⁶⁸ Because the return on surplus ownership flows only through the IUC mechanism, Comsat’s surplus ownership might be interpreted as evidence that IUCs would cover Comsat’s direct access-related costs. This inference, however, is not valid for a number of reasons.

First, as explained previously, there are costs beyond Comsat’s pure space segment investment costs that are incurred on behalf of all U.S. customers. As a result, even if the IUC-return did cover Comsat’s costs of holding surplus investment—which it does not—allowing direct access at the IUCs without a surcharge would preclude Comsat from recovering these other direct access-related costs.

⁶⁷ *Id.*

⁶⁸ *Notice* at 48. Again, with Comsat’s “surplus ownership” we are referring to the ownership that Comsat holds on behalf of foreign users under Section 6(d) of the INTELSAT *Operating Agreement*.

Second, there are important differences in investment obligations between ownership held on behalf of U.S. Level 3 direct access customers and the surplus ownership held on behalf of non-U.S. users. As explained above, surplus ownership is held *voluntarily* on behalf of others in the INTELSAT system. At the time of INTELSAT's annual ownership adjustments, all surplus ownership essentially is returned at INTELSAT's net book value and then renegotiated among the Signatories. Surplus ownership is, thus, only a short-term (*i.e.*, one-year) commitment with the "right" to return it at book value each year.⁶⁹ This feature clearly limits downside investment risk. In contrast, under Level 3 direct access in the U.S., Comsat would have the clear obligation to hold ownership in accordance with direct access customers' INTELSAT utilization. If the INTELSAT system faced difficult economic circumstances in the future, this long-term obligation—the same obligation that Comsat now assumes on behalf of its own customers—could make Comsat's direct access-related space segment investment considerably more expensive than the surplus ownership held voluntarily on behalf of non-U.S. customers. In sum, unlike the INTELSAT investment obligation Comsat would need to assume on behalf of Level 3 direct access customers, its current surplus ownership represents no such obligation and, thus, does not require the same level of compensation.

Third, and despite these differences in investment obligations, it should be clear from the above discussion (in Section IV.B.) that IUCs do not cover even the incremental costs of the space-segment investment that Comsat voluntarily holds on behalf of non-U.S. users. Surplus ownership is, thus, a net cost to Comsat. Clearly, Comsat's willingness to hold surplus ownership is not due to attractive returns paid through the IUC mechanism. Rather, excess ownership is related to several other factors. Some are historical and reflect the U.S. government's initial desire for Comsat to invest in excess of U.S. utilization so that less developed countries could join INTELSAT at lower cost, thereby fulfilling the objective of

⁶⁹ In the financial sense, this right can be interpreted as an annual "put option" with a strike price equal to net book value.

the 1962 Satellite Act and—by increasing the reach of INTELSAT—capturing important scale and scope economies for the benefit of both users and owners of INTELSAT.⁷⁰ Surplus ownership also reflects subsequent U.S. preferences to maintain influence in INTELSAT for the benefit of U.S. customers and U.S. manufacturers of satellites and launch vehicle.

In contrast to most Signatories for which INTELSAT represents only a small fraction of their overall business, Comsat's long-term prospects critically depend on INTELSAT's long-term viability. Recently, moreover, INTELSAT's long-term viability has generally been recognized as inherently tied to successful restructuring. Although Comsat's ownership share has decreased from over 50 percent in the early 1970 to approximately 18 percent today, it is still the largest, and sole "pure-play" investor in INTELSAT. Comsat, thus, plays (and always has played) a pivotal role in governing INTELSAT and spearheading efforts to achieve pro-competitive privatization. Hence Comsat has been willing to accept *some* surplus ownership at substandard returns (as provided through the IUC mechanism) to advance these goals, and to do so consistent with U.S. policy objectives.

Allowing U.S. direct access customers to pay only the IUCs, however, would *significantly* increase the proportion of Comsat's INTELSAT investment for which it could only earn the non-compensatory returns provided through the IUC mechanism. This would drastically increase Comsat's cost of maintaining its ownership share and influence within INTELSAT.

Importantly, at a current ownership share of only 18 percent, Comsat's influence within INTELSAT would diminish rapidly with even small further decreases in ownership. To prevent the INTELSAT Board of Governors from taking certain decisions (*e.g.*, actions that are not in the long-term interest of the U.S.), the decision must be opposed by a combined voting share exceeding one-third of the combined investment share represented on the Board

⁷⁰ Note that, because Comsat's surplus ownership is still held primarily on behalf of lesser developed nations, such benefits from scale and scope economies still exist today.

of Governors, held by no fewer than four Governors.⁷¹ Comsat has informed us that, depending on voting shares represented on the Board, the total ownership share required to block a decision (*e.g.*, in pursuit of a U.S. government instruction) has tended to range in the recent past from 27 to 30 percent. At Comsat's ownership share of 18 percent, it has been (and should continue to be) feasible to deal with such situations with as few as three other Governors joining Comsat. Given that only eight other Signatories own more than three percent of INTELSAT (and none more than 10 percent), it should be clear that without Comsat's current surplus of approximately three percent, the support of one or more additional Governors (representing large Signatories) would be necessary beyond the three now minimally required to mount a successful blocking vote. Comsat's surplus ownership therefore disproportionately bolsters the U.S. influence within INTELSAT.

E. UNDERSTANDING THE "MARGIN" IN COMSAT'S COST STRUCTURE

The *Notice* refers to statements alleging that Comsat's average "margin" over the IUCs is 68 percent.⁷² This "margin"—sometimes referred to as "mark-up"—is also one of the most misunderstood terms in the entire debate. As explained in the Commission's response to questions by Chairman Bliley,⁷³ the so-called "mark-up" was only the average difference in 1996 between IUCs and Comsat's rates across all services that Comsat provides to its U.S. customers.⁷⁴ In other words, it is merely the *difference* between (1) total IUC payments associated with Comsat's space segment services and (2) Comsat's total revenues. Because

⁷¹ The Board is generally composed of 20 to 22 governors who represent the individual Signatories with the largest investment shares and groups of Signatories with smaller investment shares.

⁷² *Notice* at 45.

⁷³ Regina Keeney, Response to Chairman Bliley's question #14 to the FCC, December 22, 1997, p. 10.

⁷⁴ *In 1997, this difference was only 52.5 percent*—considerably less than what the Commission calculated for 1996. (In 1997, Comsat's paid \$143.5 million in IUCs on behalf of its customers and received \$218.9 million in revenues from INTELSAT service to U.S. users: $(\$218.9 - \$143.5) / \$143.5 = 52.5\%$).

IUC payments clearly do not represent the true cost associated with Comsat's space segment investment, this difference or "*differential*" between Comsat's rates and the IUC's is not a "*margin*" or "*mark-up*" in the ordinary sense of the term. This fact has also been stressed by the Administration's answer to Chairman Bliley, which specifically explained that the term mark-up is "misleading" and should not be used because INTELSAT utilization charges do not reflect all of Comsat's costs.⁷⁵

As a result, the IUC differential is a meaningless number: it is the difference between two essentially unrelated measures. This difference *does not* represent the difference between Comsat's cost of its space segment and the rate charged to Comsat's customers. Because Comsat owns INTELSAT space segment and does not "buy" it from INTELSAT at the IUC, the difference *does not* represent a "resale margin" or "resale markup." The difference *does not* even represent commonly-used financial ratios, such as the "earnings before interest, taxes, depreciation, and amortization" margin (EBITDA margin). Finally, this difference *certainly does not* represent Comsat's "profit margin," much less a "monopoly profit."⁷⁶

Comsat's EBITDA Margin. In 1997, the EBITDA margin of Comsat's INTELSAT business was 74 percent on total INTELSAT-related revenues; for 1996, this margin was 71 percent.⁷⁷ These margins, however, are nothing extraordinary for successful satellite operating companies. In fact, they are almost identical to PanAmSat's. PanAmSat's EBITDA margin, a statistic stressed as "an important measure of [PanAmSat's] operating performance" in its

⁷⁵ Administration's Response to Chairman Bliley's question #15, January 23, 1998, pp. 11-12.

⁷⁶ The FCC also stressed in its Response to Chairman Bliley's question #14 (December 22, 1997, p. 10) that the 68 percent "mark-up" calculation is not a useful indicator for measuring Comsat's profitability and does not accurately reflect how Comsat generates its profits.

⁷⁷ For 1996, the earnings before interest, taxes, depreciation and amortization related to Comsat's INTELSAT business was \$187 million; 1996 revenues were \$264 million. For 1997, these numbers were \$189 million and \$255 million respectively (Source: FCC, *Annual Report of Comsat Corporation* (Form-M), 1996 and 1997, pp. 47-51).

President and CEO's report to shareholders, was equal to 72 percent of revenues in 1997;⁷⁸ prior to its merger with Hughes, PanAmSat's 1996 EBITDA margin was 69 percent.⁷⁹ PanAmSat's increasing EBITDA margin has already reached 73 percent for the first three quarters of 1998.⁸⁰

Because interest, taxes, depreciation & amortization, and net income for private satellite operators largely represent the *investment-related* costs of the space segment (excluding space-segment operating costs), the EBITDA margin is a good proxy for the true cost of satellite investment as a proportion of total satellite service revenues. It follows that the difference between the EBITDA margin and 100 percent represents the proportion of companies' non-investment-related costs—satellite operating, and sales, marketing, customer service, general, and administrative costs. These non-investment costs have accounted for 26 to 29 percent of revenues for Comsat's INTELSAT business and 27 to 31 percent of revenues for PanAmSat. Again, the proportions of these costs are very similar for Comsat and PanAmSat.

In this context it is also interesting to note that in 1996, prior to its merger with Hughes, PanAmSat owned and operated four international satellites generating \$247 million.⁸¹ At the same time, Comsat owned approximately 19 percent of INTELSAT's 24 satellite fleet—or, in other words, the equivalent of 4.56 satellites. With Comsat's 1996 revenues of \$264 million, the two companies' revenues per satellite are almost identical: \$62 million per satellite for PanAmSat and \$58 million per satellite for Comsat. Thus even the revenues to which the EBITDA margins apply are very similar on a per satellite basis. In short, there is nothing unusual about Comsat's revenues, costs, or margins.

⁷⁸ *PanAmSat 1997 Annual Report* (based on consolidated pro-forma earnings).

⁷⁹ *PanAmSat 1996 Form 10-k*, p. 31.

⁸⁰ "PanAmSat Reports Third Quarter 1998 Results," *PanAmSat Press Release*, October 12, 1998.

⁸¹ *PanAmSat 1996 Form 10-K*, p. 44.

Comsat's True Profit Margin. The actual “profit margin” associated with Comsat’s provision of U.S. space segment is far from the IUC differential. Indeed, until very recently, under rate of return regulation Comsat’s true profit was limited to its Commission-prescribed return on ratebase.

Comsat's “Resale” Margin. The *Notice* refers to a recent analysis by the Satellite Users’ Coalition (SUC) claiming that competition from U.S. carriers with direct access to INTELSAT would reduce Comsat’s 68 percent “margin” by at least 35 percent.⁸² This analysis, however, is fatally flawed in its interpretation that the (misstated) 68 percent is Comsat’s “resale margin.” The claimed 35 percent reduction from direct access is based on the unsupported assumption that, if exposed to competition, Comsat’s “resale margin” over pure space-segment operating and investment costs would “drop” from the alleged 68 percent to an assumed range of 20 to 33 percent (*i.e.*, at least 35 percent less than 68 percent). The 20 to 33 percent of *wholesale costs* used in the SUC analysis is equivalent to 17 to 25 percent of *total revenues*⁸³—which is based on the range that the Commission determined was a reasonable “wholesale discount” for the purpose of pricing wholesale access to the *local loop* of incumbent local exchange carriers.⁸⁴ This Commission-determined range for a “wholesale discount” is calculated as the portion of “retailing” costs (*i.e.*, sales, marketing, and customer service costs) that are recovered in the local exchange carriers’ retail rates.

Clearly, any reasonable measure of Comsat’s “resale margin” is far less than the 1996 or 1997 IUC differential of 68 percent or 52.5 percent, respectively. If one wanted to find the correct equivalent of a “resell margin” in Comsat’s cost and rate structure, one would have to look to Comsat’s costs that are independent of ownership and operation of INTELSAT

⁸² *Notice* at 45, citing *SUC Analysis*, p. 24.

⁸³ $20 / (100 + 20) = 17$; $33 / (100 + 33) = 25$. See also *SUC Analysis*, fn 56.

⁸⁴ See *SUC Analysis*, p. 24, fn 56. It is not clear, however, that this methodology for providing wholesale discounts to local exchange networks is directly applicable to Comsat.

space segment. These costs—the sum of Comsat’s internal costs (sales, marketing, customer support, R&D, regulatory compliance, and overhead) and the unavoidable costs of Comsat’s Signatory functions—are only approximately 17 percent of Comsat’s 1997 revenues generated from INTELSAT services to end users,⁸⁵ or 21 percent of Comsat’s pure space-segment (investment and operating) costs.⁸⁶ If the administrative cost of Comsat’s Signatory function costs were also excluded from that calculation (*i.e.*, because they are not costs that could be avoided by direct access), the equivalent of a “resell margin” would be even less. In other words, Comsat’s “resale margin” (*i.e.*, the average difference between Comsat’s rates and its pure space-segment investment and operating costs) is already *well within the range of what the Satellite Users’ Coalition claims to be a competitive resale margin*. Thus, by the Coalition’s own logic, Comsat’s “markup” is already competitive and, as long as Comsat is compensated fairly for its true direct access-related costs, no genuine benefits would be achieved from the introduction of direct access. Given the extent of competition to which Comsat is already exposed for the large majority of its services—which is well documented in the Commission’s *Comsat Non-dominance Order*—this is hardly surprising.

VI. GENUINE POTENTIAL BENEFITS ARE VERY SMALL

The *Notice* specifically asks for an assessment of the potential benefits of direct access.⁸⁷ Direct access has the potential to offer *some* genuine benefits. However, even when the real costs and risks of direct access due to the previously discussed concerns are ignored, potential genuine benefits would be very small—and virtually certain to be offset by the costs. This is due to several factors:

⁸⁵ In 1997, Comsat’s internal costs amounted to \$37.6 million—compared to U.S. service revenues of \$218.9 million (Source: FCC, *Annual Report of Comsat Corporation* (Form-M), 1997).

⁸⁶ $17 / (100 - 17) = 20.5\%$.

⁸⁷ *Notice* at 15 and 44-55.

- Any genuine direct access benefits would be short-lived because they will be achieved automatically upon privatization of the remaining INTELSAT;
- Due to fundamental structural differences between the U.S. and foreign telecommunications markets, genuine benefits to U.S. consumers would be much smaller than direct access-related benefits abroad; and
- The pass-through to end users of any small cost savings for the U.S. space segment is highly questionable because at least some of those savings are likely to be appropriated as increased profits by U.S. and foreign carriers.

A. BENEFITS WOULD BE SHORT LIVED—ONLY UNTIL PRIVATIZATION

Any genuine benefits associated with direct access—even assuming the carriers' space-segment savings were fully passed through to consumers—would be realized only temporarily until INTELSAT is fully privatized. Once INTELSAT is privatized, Comsat's exclusive access as the U.S. Signatory will expire automatically. Thus, privatization would automatically provide the benefits attributed to direct access.⁸⁸

But because privatization would deliver far greater overall benefits than could direct access. In particular, privatization would replace INTELSAT's cumbersome governance structure with a more efficient, streamlined organization with the flexibility to respond to customer needs in a rapidly changing market environment. Once privatized, INTELSAT would also lose its current tax-exempt status, as well as its privileges and immunities as an international

⁸⁸ IUCs would also be eliminated at that time (as would INTELSAT's Level 3 direct access program), and INTELSAT's entire pricing structure would shift from the accounting rates of a cost sharing cooperative to competitive market prices charged by private (taxable) satellite operators.

organization. In addition, it would provide services on a non-exclusive basis and be subject to applicable national laws in each of the countries in which it provides services.

Comsat has been the first and most avid supporter of full INTELSAT privatization. In fact, Comsat first proposed privatization in 1993. Over the last years, privatization has also gained great momentum within INTELSAT. Indeed, the first stage of the privatization process has already been realized with the creation of New Skies Satellites N.V. and the November 30, 1998, transfer to New Skies of five existing INTELSAT satellites and one currently under construction.⁸⁹ New Skies is a fully private entity independent from INTELSAT and is a new global satellite communications competitor that offers its services on a non-exclusive basis. Since New Skies is expected to have its greatest business emphasis in video and multimedia services, the creation of New Skies already provides for the customers of such services the genuine benefits (and more) that direct access is meant to achieve.⁹⁰

Moving forward, restructuring of the remaining INTELSAT organization has been greatly accelerated. INTELSAT's Director General, Conny Kullman, who his position in October 1998, is strongly committed to privatization and has announced that this might be achieved as early as March 2001.⁹¹ In addition, other Signatories, including British Telecom (the second largest Signatory after Comsat), now have begun to press for full privatization as well

⁸⁹ "Intelsat Transfers Satellites to New Skies Satellites N.V.," PR Newswire, November 30, 1998.

⁹⁰ Of course, video services customers will still call for direct access because it may make INTELSAT space segment available at rates that are non-compensatory to Comsat. But any customer savings from such below-cost direct access would come at the expense of Comsat, and thus would not be genuine overall benefits.

⁹¹ "Bringing INTELSAT back to Earth: The Satellite Group Wants to Privatize and Compete in the Real World," *Washington Post*, July 20, 1998, p. F05; "Intelsat to Expand Internet, Video Services, Kullman Says," *Telecommunications Reports*, November 16, 1998, p. 14; see also "Intelsat to Create Post of Privatization Czar," *Telecommunications Reports*, October 12, 1998, pp. 24-25; and "Intelsat Decides to Give Orbital Slots Back, Asks for 'Commercialization' Business Plans," *Telecommunications Reports*, December 14, 1998, pp. 7-8.