artificial entry barriers. For this reason, the Open Market Standard can support entry, even if no competitor chooses to enter, so long as the BOC has established that the absence of entry is not due to the artificial barriers to competition that the Act intended to eliminate. [9]

29. Second, whatever the merit of the claim about strategic delay incentives of IXCs, one must distinguish between IXCs and other potential local competitors ("CLECs") that are absent from the long distance market. Such CLECs have no long-distance base to protect and thus would have considerably weaker incentives to delay their local entry for purposes of delaying BOC interLATA authority.[10] Moreover, it is difficult to believe that such diluted incentives could suffice to induce *all* potential local entrants—including CLECs that have no major initial business in either the long distance or local markets—to hold back on expanding aggressively into the local market. If other entrants were to engage in such strategic delay then, assuming the local market were truly open to competition, it would pay any firm that currently has no presence (or only a small one) in the local and long distance markets to enter the local market aggressively to seize market share and exploit any first-mover advantages.

30. Third, the theory that local entry is delayed primarily due to CLECs' reluctance to trigger approval of BOC interLATA authority is not supported by the experience in states where non-BOC LECs already offer interLATA services. In Connecticut, SNET has offered interLATA services for several years. Therefore, the strategic delay motive that BOC experts allege should be considerably weaker in SNET's territories, at least for smaller, non-IXC CLECs. Yet the extent of local entry, including by small, non-IXC CLECs, has, to my knowledge, been no greater than in BOC states.

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[9] Among other things, the BOC must demonstrate that at the time of application it has made wholesale support systems legally and practically available at appropriate prices and levels of performance; benchmarked such performance; and demonstrated that such systems can be scaled or extended to meet future demand. On the DOJ Standard, see DOJ Oklahoma Section 271 Evaluation at 27-29, 41, 48-50.

[10] Conceivably, even such entrants may gain somewhat by delaying BOC entry. Delaying BOC entry *might*: (a) allow such CLECs to extract from state commissions additional measures to open local markets prior to authorizing the BOC interLATA entry; or (b) delay IXCs' entry into local markets (if BOC experts are correct about IXCs' strategic incentives to refrain from local entry in order to delay BOC's interLATA authority), for purposes of forestalling the IXCs as competitors to the CLECs in local markets. But such incentives would be rather weak and, as explained in the text, are unlikely to outweigh the benefits to a CLEC of accelerating its own local entry.

Similarly, to my knowledge local entry into GTE's territories in California has not been greater than into those of Pacific Bell; even though Pacific Bell is still precluded from offering interLATA services, while GTE, like SNET, already may and does offer such services. Nor has there been more entry into GTE's Florida territories than into most other urban regions.

31. In short: (a) the alleged incentives of IXCs to strategically delay their local entry in order to delay triggering BOC interLATA entry would not apply nearly as much to other potential local entrants; (b) the strategic incentive theory is not supported by the facts; and both IXCs and other potential local entrants are equally adamant about BOC-imposed entry barriers and the need to withhold BOC interLATA authority until the local market is opened.[11] A reasonable reading of the evidence in the SBC and Ameritech applications is that the respective BOCs have failed to undertake fully the major market-opening measures required by the Act. Thus, the main issue is *ability* to enter.

2. The Ability of Local Entrants to Enter Rapidly and Efficiently Hinges on BOC Cooperation

32. As mentioned, some BOC experts argue that BOC interLATA entry would force IXCs to accelerate their own facilities-based entry into local markets in order to better compete in offering one-stop shopping and other integrated services. But the policy objective articulated in the 1996 Act is not the promotion of facilities-based entry at all costs; forcing entrants to build duplicative facilities, such as local loops everywhere, is neither practical in the foreseeable future nor desirable. Rather, the goal of the Act's local competition sections is to elicit the requisite cooperation from incumbent LECs so that entry can occur as rapidly and efficiently as is dictated by technological conditions and market opportunities. As I explained in my initial affidavit, BOC cooperation would be vital to all entrants, regardless of which of the three entry modes envisioned in the Act they seek to employ (¶¶

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[11] See Motion To Dismiss by the Association For Local Telecommunications Services (June 10, 1997), Opposition of Brooks Fiber Communications of Michigan to Ameritech's Application (June 10, 1997), Comments of WorldCom, Inc. in Opposition to Ameritech-Michigan Application for InterLATA Authority (June 10, 1997).

8, 52-57).

33. Professor Kahn and Dr. Tardiff take exception to the notion that BOC cooperation is important for local entry. They write: "One need look no further than Professor Schwartz's intraLATA toll example to see why specific requirements may not be necessary for competition to develop. Despite the fact that dialing parity has not been universally required, the IXCs have already captured 22 percent of the market nationwide..."[12] (Schwartz Aff. ¶ 62.) Unfortunately, they neglect the main part of my intraLATA toll discussion (¶¶ 141-143), which demonstrates precisely the reverse of what they claim. The point of that discussion is that intraLATA toll dialing parity offers a compelling case study of incumbents' ability and incentive to stall the introduction of new arrangements important to local competition.

34. The BOCs repeatedly and successfully delayed the introduction of dialing parity, long after it was determined to be in the public interest. In Minnesota, the delay caused by repeated legal and administrative challenges was close to a decade. Presumably the BOCs would not have resisted dialing parity so bitterly if they had perceived it as inconsequential to entrants' success. And experience proves them right. In Minnesota, for example, the share of the one major IXC that I checked with approximately tripled within six months after intraLATA dialing parity was introduced. Thus, the issue is not whether IXCs succeeded in capturing 22% of the intraLATA toll revenue nationwide—which is an average figure across states that do have dialing parity and those that do not—even without ubiquitous dialing parity, but what their market share and competitive influence *would have been with ubiquitous dialing parity*. Judging by BOCs' vigorous resistance and by the Minnesota evidence, the impact would have been considerably greater. Indeed, beyond competitors' greater success following the introduction of dialing parity, there is also evidence that introducing dialing parity reduces prices substantially.[13]

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[12] For the 22 percent figure, they cite p. 11, ftn. 4 of my affidavit, which reported 1995 intraLATA toll revenues of about $3.3 billion to IXCs v. $10.1 billion for ILECs.

[13] For example, the Michigan Attorney General said that in Illinois, Ameritech customers pay only 0.4 cents per minute above access charges for intraLATA toll with full dialing parity, whereas they pay 10 cents per minute above access charges for intraLATA toll in Michigan without full dialing parity. He also indicated that prices in Illinois fell from 12 cents per minute to 3 cents per minute on the introduction of dialing parity. Ameritech Michigan v. Michigan Public Service Commission, Michigan Supreme Court No. 110338, Attorney General Frank J. Kelley's Response at 3, ¶ 6 (Sept. 2, 1997) and statement issued on July 23, 1997

35. An additional example of the BOCs' perception of the significance of intraLATA toll dialing parity may be found in Michigan. The Michigan Public Service Commission (MPSC) issued an order requiring Ameritech to implement statewide intraLATA toll dialing parity within 30 days and to implement a 55% discount on access charges in central offices where it failed to provide such. parity.[14] Ameritech discounted access charges by 55% instead of expanding dialing parity beyond the 10% of access lines for which parity had already been implemented.[15]

3. Pitfalls of Relying Primarily on Post-Entry Measures to Secure BOC Cooperation in Opening Local Markets

36. My discussion of what can be learned from the experience with intraLATA toll was intended to highlight the dangers of relying primarily on post-entry safeguards to secure BOC cooperation in implementing *new* access arrangements, such as those needed to foster local competition. There I explained why requiring the prior implementation of such arrangements is an appropriate precondition for BOC interLATA entry.

37. As a general matter, exclusive reliance on policing conduct and on undoing competitive

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accompanying brief filed in Michigan Supreme Court.

[14] June 26, 1996 Order of the Michigan Public Service Commission. This order considered the effect of the Michigan Telecommunications Act of 1995 ("MTA") on prior-issued MPSC orders dealing with intraLATA toll dialing parity. The MPSC determined that the MTA had amended the prior-ordered conversion schedule but had not voided the earlier orders. This conclusion was repeated in the MPSC's October 7, 1996 Order on Rehearing.

[15] *See* Ameritech News Release, "Ameritech to cut access rates to long distance companies" (July 26, 1996), and Ameritech Michigan v. Michigan Public Service Commission and MCI Telecommunications Corporation and AT&T Telecommunications of Michigan, Inc., Court of Appeals Case No. 198706, Appelant Ameritech Michigan's Brief on the Merits at 12 ("Ameritech complied with the Commission's June 26, 1996 Order by implementing the 55% access charge discount.") (Jan 2, 1997.) Ameritech also pursued rehearing at the MPSC and appeals at both the federal and state level, arguing that the MPSC orders were unlawful. Ameritech did not challenge the feasibility of implementing toll dialing parity.. On December 4, 1996 the Michigan Court of Appeals granted a stay. Oral argument on the merits of the matter was heard October 14, 1997. Despite the pendency of the appeal, Ameritech has now implemented intraLATA toll dialing parity for 70% of Michigan, consistent with the commitments made to the MPSC in its section 271 checklist compliance case. *See* Case No. U. 11104, Ameritech Compliance Filing at 12 (November 27, 1996).

damage ex post is problematic; this is why, for example, antitrust merger policy places such weight on preventing anti-competitive mergers rather than allowing all mergers and attempting to address anti-competitive conduct after the fact. In the present context, authorizing BOC entry prematurely and relying solely on post-entry safeguards to attempt to open BOC local markets to competition is especially dangerous.

38. As my affidavit explained, many of the local competition arrangements required by the Act, such as wholesale support services and network unbundling, are novel and hence offer great scope for gaming and delay by incumbents. Post entry enforcement without adequate prior performance benchmarks would be difficult: the great asymmetry of information between a BOC and outsiders about what constitutes unreasonable delay in implementing new systems is likely to make enforcers leery of imposing heavy penalties for perceived foot-dragging. Indeed, BOCs' potential ability to delay the new local competition arrangements is at least as great as for intraLATA toll dialing parity, because arrangements such as loop unbundling and operations support systems are considerably more complex technologically than was dialing parity. The FCC's experience with trying to pursue Open Network Architecture in the face of incumbent LECs' resistance (Schwartz Affidavit, ¶¶ 145-148) illustrates the difficulties involved.

39. Therefore, there is real value on insisting that a BOC establish the main requisite new systems before being allowed entry. A BOC's own incentive to expedite its interLATA entry will then induce it to implement these systems more efficiently and expeditiously than if entry were authorized and regulators had to then force the recalcitrant BOC to implement these systems.

40. This does not mean that one must dot every "i " and cross every "t" prior to allowing BOC entry. And it also does not mean that a BOC has to do competitors' work for them. But it *does* require that the elements which Congress viewed as important for fostering local competition be in place. Loop unbundling and operations support systems are hardly trivial details, and they would be difficult to enforce if not already in place.[16]

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[16] In his South Carolina Declaration on behalf of BellSouth, Professor Hausman portrays the FCC as insisting on a "standard of regulatory perfection" and criticizes the FCC for denying Ameritech's Michigan application: "If all significant barriers to local entry have been removed, the Commission should permit BOC entry into long distance markets. However, even if say 95% of the barriers to entry had been eliminated and 5% remained, it would not be in the consumers' best interest to forgo the billions of dollars of consumers

4. The Open Market Standard Ultimately Reduces Intrusive Regulation

41. Some have argued that, as a legal matter, the DOJ Standard entails discretion that lies outside DOJ's proper role under the Act; and that such discretion would result in regulatory micro-management by the DOJ, moving us in the direction of more rather than less intrusive regulation. On the role for discretion, it is mystifying why Congress included in the Act the Public Interest test to be conducted by the FCC and a substantial DOJ role in advising the FCC, if it did not intend to give these agencies discretion. The inescapable—and economically correct—conclusion is that one needs a reality check, in the form of agency "discretion"—rather than a formulaic analysis—to verify that local markets indeed are being opened.

42. The more interesting issue is whether, as critics claim, such discretion indeed entails more intrusive regulation than would a more permissive BOC entry standard and reliance on post entry enforcement to open BOCs' local markets. In fact, the reverse is true. Allowing BOC entry before the main systems for local competition are in place and attempting to mandate their implementation ex post would embroil us in a regulatory morass as it has in the past: having little incentive to comply, the BOCs would fight every requirement, and regulators would be hard pressed to dispute them especially as regards implementation of new arrangements. Moreover, attempting to enforce such requirements by specifying very specific measures would itself be highly intrusive.

43. Judicious use of the § 271 entry authority is superior: the DOJ Standard insists on implementation of certain market-opening measures as a condition for BOC entry, while leaving to the BOCs—whose information on these issues is vastly superior to that of outside enforcers—the flexibility of how to best meet these requirements. The BOCs' incentives to meet these requirements

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benefits from long distance competition to achieve the last 5% of entry barrier removal." (¶ 11, footnote omitted.) I completely agree that one should examine the *marginal* benefits and costs of any policy. But Professor Hausman is wrong in suggesting that only minor details remained to be implemented in Michigan; and he sets up a straw man in stating "I recommend that approval be granted as soon as Sections 271 and 272 have been satisfied." (¶42.) We all agree that approval should be granted once Sections 271 and 272 have been met. The point is, they have *not* been met in any of the three BOC applications to date, and the remaining barriers cannot be accurately portrayed as minor. (See Section C below.)

efficiently and expeditiously will be far greater—hence the need for regulatory micro-management will be less—if BOC interLATA entry is conditioned on the local market first being open to competition.

44. In short, the DOJ's entry standard will greatly reduce the need for future regulation. By doing more to open local markets to competition now, it permits a more rapid move towards substantially lighter regulation later; indeed, this is the underlying philosophy of the Act's entire local competition provisions. A more permissive BOC entry standard ultimately would invite far more micro-management.

C. The Open Market Standard Does Not Unduly Delay BOC InterLATA Entry

45. It is important to be clear about the workings of the DOJ Standard, in order to understand why the Standard does not impose undue delay of BOC entry.

1. Assessing Market Openness: No Metric Tests or Other Rigid Markers

46. Kahn and Tardiff portray my standard accurately: "[Schwartz's] preferred metric is the presence of competition (par. 20). In situations where rapid competitive entry was not economic, he would allow the RBOCs to rebut the presumption that their actions were responsible for the delay (par. 21)." (Kahn and Tardiff, ¶ 60.) This approach is no more than common sense: the best evidence that the local market has indeed been opened to competition through all three entry modes—facilities, resale, and unbundled elements—is to observe such competition on a meaningful scale. Failing to observe this for one or more of the entry modes is not taken as proof that the market has not been opened. Rather, it calls for further inquiry to satisfy oneself that the lack of entry is not due to lingering artificial barriers. The BOCs, who would be in the best position to demonstrate that they have indeed removed artificial barriers under their control, would bear the burden of proof. Such a shifting of presumptions in light of observed market outcomes is neither novel nor unreasonable.

47. ***No metric tests.*** Contrary to some claims, the DOJ Standard does *not* require incumbents to lose any specified number of customers. It does require adequate demonstration that incumbents' wholesale support systems be capable of permitting large numbers of customers to switch to competitors reasonably rapidly and smoothly should customers wish to switch. Such switching capability is critical. Since the vast majority of local subscribers are currently customers of the incumbent, if switching of customers is impeded then entry—through any of the three modes—would be stopped dead in its tracks. In California, for example, MCI and AT&T's efforts to enter the market were frustrated when PacBell's systems for processing resale orders broke down, causing substantial delays before a customer could be switched to a competitive carrier and leading those companies to end their marketing campaigns.[17]

48. A BOC's mere assertion that the relevant systems are ready to go obviously should not suffice. While the best evidence of such systems' capability would come in the form of observing actual competitors making significant use of such systems, both the DOJ and the FCC have made it clear that other evidence also would be acceptable. Such evidence, can include: experience in other states using the same system(s); carrier-to-carrier testing; independent audits; and, if these options are not available, even self testing by the BOCs.[18]

49. ***Observing all three entry modes.*** Professors Gilbert and Panzar write:

> "We however respectfully disagree (with Schwartz ¶ 20) . . . that '*use on a commercial scale of the new access arrangements needed to support all three modes of local entry envisioned in the Act [facilities-based, unbundled elements and resale] demonstrates that competitors are obtaining what they need from the BOC.*' A requirement to show checklist compliance for all three entry modes would be contrary to conventional economic theory. The dispersion of actual entry between the three modes depends critically on the prices and conditions for

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[17] See MCI v. PacBell, Cal. PUC No. 96-12-026 (Sept. 24, 1997), at 27 (finding that MCI ceased marketing after PacBell built up backlogs of 4,000 to 5,000 orders and that, by PacBell's own admission, its systems did not offer their competitors resold services at parity).

[18] See DOJ Oklahoma Evaluation, App. A, 81-89; DOJ Michigan Evaluation 22-23.

the UNEs and resold service from the incumbent. . ." (Gilbert and Panzar Reply, ¶ 9.)

50. I fail to see why there is disagreement. I made it clear in my affidavit that:

"Opening the market does not require evidence of local competition of all forms and in all regions of a state. . . (Schwartz Aff., ¶ 19.) . . . If sufficiently diverse competition fails to develop,...one possibility is simply lack of interest by entrants in pursuing certain entry modes in certain regions. (Schwartz Aff., ¶ 21). . . . if we are successful in ensuring that incumbents make available unbundled network elements at prices reasonably close to incremental cost and if such arrangements work smoothly, then it would be wasteful to insist that entrants build entirely their own facilities." (¶ 170.)

51. Precisely for these reasons, I said that observing all three entry modes on a significant scale would be *sufficient* to establish that the market has been opened to this mode of entry; I did *not* state that it was *necessary*. Rather, it shifts the presumption: "...we do not expect to see all forms of competition everywhere. However, if sufficiently diverse competition is not observed, . . . it is important to ascertain that competition is not being stifled by artificial barriers. . . Reversing this presumption requires verifying that the main elements of an open market indeed are in place." (¶ 179.)

52. Professors Gilbert and Panzar also criticize this approach of shifting presumptions, by arguing that one could not hope to observe all three entry modes concurrently: "A requirement to show checklist compliance for all three entry modes would be contrary to conventional economic theory (because only the most profitable mode will be chosen)." But they overstate the case. It is perfectly plausible to observe all three entry modes concurrently, for at least two reasons.

53. First, a given entrant may well find that different entry modes are best suited for serving different classes of customers (*e.g.*, small residential v. large business) or different geographic regions (*e.g.*, rural v. urban). Such a pattern is not unlikely given that the Act stipulates different pricing rules governing unbundled network elements, and resale, and that cost conditions vary for serving different regions or different customer classes. Thus, an entrant may prefer to serve: low volume users by reselling the incumbent's services; medium volume users through unbundled loops; and high volume

users by building its own facilities.[19]

54. Second, entrants are heterogeneous in the skills that they bring to the market and in what they require from incumbents. Thus, an entrant whose comparative skills are in retailing may opt to pursue resale, while another who plans to offer innovative vertical services may prefer to provide its own switch and lease other unbundled elements.

55. Indeed, we do observe all three entry modes attempted in the same state. In Michigan, Brooks Fiber serves some customers entirely over its own facilities, and others over unbundled loops leased from Ameritech; and other entrants, such as USN and AT&T, entered through resale.[20] Entrants are also employing all three entry paths in New York.[21]

2. Meeting the Standard is Largely Within BOCs' Control

56. Kahn and Tardiff, while accurately characterizing the DOJ Standard, argue that it would be extremely contentious and unworkable: "Rather than requiring regulators to satisfy themselves only that 'the requisite *arrangements* necessary to open the local market are made available...' it would require them additionally to assess the degree to which that availability has *proved effective*—that is, whether 'meaningful local competition' has 'emerged' and, if not, 'why'—both complicated questions." (¶ 65.) This alleged vagueness "... gives opponents of RBOC entry into interLATA

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[19] The greater a customer's volume, the greater the traffic-sensitive charges an entrant would pay the incumbent for leasing its switch; to avoid these charges, the entrant may prefer serving medium volume users not through resale but through its own switch, while leasing the incumbent's loop. For high volume customers, such as large businesses in dense business centers, the entrant may prefer building entirely its own facilities, including loops, *e.g.*, because this allows the entrant better quality control and greater ability to customize and vary services later.

[20] Application of Ameritech Michigan Pursuant to Section 271, CC Docket No. 97-137, Evaluation of the Department of Justice at 31-32 and Appendix B (June 25, 1997).

[21] In the Matter of the Application to the FCC by New York Telephone for Approval to Provide In-Region InterLATA Services in New York, Vol. 1. Filed with the NYPSC February 18, 1997. (As in Michigan, use of unbundled elements was in combination with the entrant's own facilities—no BOC is yet providing a "platform" of all the unbundled elements.)

markets new opportunities to use the regulatory process to delay that entry." (¶ 63.)

57. To some extent, our disagreements are semantic. The surest way to confidently ascertain that arrangements have truly been made available is to observe meaningful local competition. I know of no other easy way to ascertain this. Thus, if meaningful local competition fails to develop, there is no escaping the admittedly complex inquiry as to whether the market is open..

58. Though I am sympathetic to Kahn and Tardiff's concerns that complexity and vagueness offer scope for gaming by opponents of BOC entry, it is not opponents who decide whether to authorize BOC entry. One must also remember that a permissive BOC entry standard also would encourage abundant gaming— by the BOCs against local entrants. And whereas delaying BOC interLATA entry will not stop other entities from entering that market, delays by BOCs in opening their local market will substantially impede the development of local competition. Let us not forget—it is the BOCs not the IXCs who control the key bottlenecks in telecommunications.

59. Finally, compliance with the DOJ standard need not unduly delay BOC interLATA entry. It entails steps that are largely under a BOC's control.

60. To the extent BOCs are complaining about their interLATA entry being delayed, experience to date shows that it is *not solely* because of the public interest standard and the DOJ's examination of whether local markets are fully and irreversibly open to competition. SBC's Oklahoma application was denied because SBC failed to meet the Track A or B threshold tests; Ameritech's Michigan application was denied because Ameritech failed to meet checklist requirements such as OSS for resale and for unbundled elements, adequate nondiscriminatory interconnection, and provision of unbundled transport. I recognize that future situations may arise where a BOC has met the other minimum legal criteria but, because of the continued existence of *significant* additional entry barriers, its local markets are not fully and irreversibly open to competition. If such a situation arose, I would conclude that denial of the application would still be justified, for reasons discussed in my original affidavit (Section V.D, especially ¶¶ 189-190). But to date, there is no basis for suggestions that the DOJ's entry standard is to blame for denial of BOC interLATA entry.

II. INFLATED ESTIMATES OF GAINS IN INTERLATA MARKET FROM BOC ENTRY

61. In my original affidavit I stressed that, all other things equal, there were likely benefits from earlier authorization of BOC entry. A BOC in its region enjoys certain advantages over many other potential entrants into interLATA services, notably its established reputation and relations with virtually all customers. These advantages may enable it to economize on retailing costs by offering integrated services, and to provide consumers with the benefits of one-stop shopping. And since long-distance competition is not perfect, BOC entry could further benefit consumers by forcing down IXCs' margins.

62. As explained in Part I of this affidavit, however, the existence of potential benefits from BOC entry does not imply that early authorization is desirable on balance, as one also must consider the potential costs from delayed opening of local markets. I now wish to address two issues raised by BOC experts: (1) that by virtue of also providing exchange access, a BOC has stronger incentives than do other interLATA competitors to reduce interLATA prices, because stimulating calling volume would also increase its profits from *access*; and (2) that, for this and other reasons, the benefits of BOC entry are likely to be enormous. For instance, Professor Jerry Hausman, in his Michigan Declaration on behalf of BellSouth, forecasts nationwide benefits of $6.7 billion annually to residential consumers alone (Hausman 1, ¶ 13); and Professor Paul MacAvoy "conservatively" projects $1.9 billion annually to long-distance consumers (residential and business) in just Ameritech's region (MacAvoy Michigan Reply Aff., ¶ 35).

63. Section A below examines BOC incentives to cut interLATA prices, demonstrating that the analytic basis for expecting large reductions of the magnitude predicted by Professors Hausman or MacAvoy is dubious. Moreover, the same argument Professor Hausman uses to justify BOC entry—reduction of "double marginalization"—also supports a standard that speeds up local competition. Section B shows that the evidence from interLATA entry by two major non-BOCs, SNET and GTE, also does not support dramatic gains of the size projected by Professors Hausman and MacAvoy.

A. BOCs' "Unique Incentives" to Cut Prices Are Far Weaker Than Asserted, and Such Incentives Do Not Support Early BOC Entry If That Would Retard Local Competition

1. Increasing Access Profits by Stimulating InterLATA Minutes Through Reducing "Double Marginalization"

64. Professor Hausman argues that a BOC has far stronger incentives to cut prices in an imperfectly competitive interLATA market than do existing IXCs or any interLATA entrants that are not integrated into providing exchange access services. Each additional long-distance minute increases access use and thus BOC profit from access. Since this consideration is absent for providers that lack their own access facilities, a BOC's incentive to cut long-distance prices is stronger.

65. It is worth noting at the outset that Section 272 of the Act requires a BOC to charge to an affiliate or to impute to itself an access charge no lower than what is charged to IXCs. This requirement would seem to restrict BOCs' ability to behave in the manner stipulated by Professor Hausman and some other BOC experts.. Nevertheless, let us consider this argument as it relates to BOC *incentives*. While there is an element of validity to the argument, one should recognize its serious limitations: (a) IXCs and other carriers would have similar pricing incentives if they were able to provide *local* services, an ability that the Act aims to ensure by promoting local competition; (b) in the absence of significant local competition, BOCs would have incentives to attempt access discrimination against long distance carriers (raising their costs of accessing local networks or degrading their quality), for purposes of *raising* interLATA prices; and © even if such behavior could be adequately prevented, BOC incentives to cut prices would be considerably less than claimed, since BOC margins on access are falling and—according to BOC experts—are already lower than interLATA retail margins, margins that would be threatened by aggressive BOC price cutting.

66. ***Incentives for others to vertically integrate into local services.*** The argument that BOCs would have uniquely powerful incentives to cut interLATA prices by virtue of being vertically

integrated overlooks the incentive of others, such as IXCs, to vertically integrate into the provision of exchange access. Like BOC interLATA entry, such integration also could eliminate the "double marginalization" which arises today because access is priced well above marginal cost (and because the interLATA market is not perfectly competitive). Just as a BOC, if allowed interLATA entry, would recognize the positive impact on its access business from stimulating interLATA output, so would an IXC if it could integrate into providing exchange access. Indeed, it is inaccurate to couch the "double marginalization" distortion as arising solely due to imperfect competition in interLATA services. Rather, the distortion arises whenever non-integrated and imperfectly competitive firms at *both* stages—exchange access and interLATA retail—choose their prices ignoring the beneficial impact that a price cut would have on sales and profits at the other stage. One could just as accurately portray "reduction of double marginalization" as requiring entry by IXCs into exchange access to reduce inflated access prices. The key to reducing double marginalization is vertical integration, in either direction, and firms would have incentives to do so if they had the ability.

67. The *ability* of IXCs and other non-BOCs to accomplish such vertical integration, however, depends heavily on obtaining adequate cooperation from the BOCs in providing interconnection to and unbundling of their local networks. Consequently, a consideration of double marginalization does not necessarily suggest a more lenient standard for BOC entry, in large part because such a standard is less likely to elicit adequate BOC cooperation. Moreover, to stress a BOC's unique ability to operate as an integrated provider would be to concede that the prospects for local competition in access are not rosy, a far cry from positions taken by BOCs in various proceedings.

68. ***BOC incentives to attempt non-price access discrimination against IXCs.*** The argument that the BOCs would like to see a lower average interLATA price than currently prevailing assumes that a BOC can compete only by lowering price, not by increasing competitors' costs or degrading their quality through network access discrimination. (It also assumes, as discussed shortly, that a BOC would not capture a large share of the interLATA market.) Since the average elasticity of demand for long-distance services is estimated to be well below 1 (0.7 is a consensus figure), interLATA industry revenue would be increased by raising price and accepting the reduction in output, hence profits would also be increased (as costs would decrease due to reduced output).

Thus, an integrated monopolist over both access and downstream long-distance sales *would prefer to raise, not to lower, the average interLATA retail price* from today's level. (A perfect cartel of IXCs—if it existed as some BOC experts claim—would prefer an even higher price, since IXCs do not collect access profits and thus perceive higher marginal cost of offering interLATA service than would an integrated monopolist that would collect such profits.)

69. Following this logic, a BOC entering interLATA retail services and that was capable of expanding its own output rapidly would have incentives to nudge the industry towards the higher monopoly price, by using technological access discrimination to inflate competitors' costs or degrade their quality, thus enabling the BOC to raise its own price. (It would have a similar incentive also for purposes of shifting sales from competitors to itself if competitors were earning supra-competitive margins, but the current discussion does not require the existence of such margins.) Hausman's contrary argument, that a BOC would prefer *lower* prices, assumes away the ability of a BOC to undermine IXCs through such access discrimination. (It also assumes that a BOC would capture only a relatively small share of the IXC market unless it cut price vigorously, an assumption questioned below.)

70. My affidavit noted that regulatory and other safeguards can render the threat to IXCs' access arrangements tolerable, at least in the short run (Schwartz Aff., ¶ 14). However, if local competition fails to develop exchange access alternatives, then BOC interLATA entry is likely, over time, to pose a growing threat to the ability of IXCs to compete (Schwartz Aff., ¶ 160), since IXCs' access needs will change over time and preventing discrimination in the establishment of new access arrangements is considerably harder than preventing the degradation of established arrangements. In the longer run, therefore, the BOCs would have strong incentives and perhaps also the ability to raise interLATA prices by impeding IXCs' access to local networks.[22]

71. ***Profit from BOC interLATA entry may come largely from diverting sales from IXCs than from expanding access use.*** Assume for the sake of argument that a BOC would not be able to raise

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[22] For these reasons, Professor Hausman, in his Declaration on behalf of BellSouth in South Carolina, mischaracterizes my initial affidavit somewhat when he writes: "Indeed, Professor Marius Schwartz . . . concluded that no competitive problems are likely to exist from BOC entry into long distance, . . . " (¶ 41).

competitors' costs of providing interLATA services via access discrimination, as discussed above. BOC incentives to cut retail interLATA prices aggressively would still be more muted than suggested by BOC experts. This is because a BOC's increase in profit from expanding access minutes is likely to be considerably smaller than its profit from retail long-distance sales, hence BOC behavior is likely to be guided primarily by the latter rather than by access profits.

72. To see this, let us do some simple calculations using Professor Hausman's own figures from his Michigan Declaration on behalf of BellSouth. He estimates that BOC entry would reduce interLATA price to residential customers by about 18%. To be generous to Hausman, assume that this reduction would apply also to business customers.[23] Using his 0.7 estimate of long distance demand elasticity an 18% price reduction implies an increase in interLATA minutes of about 12.6%. The revenue to all BOCs from usage-sensitive access charges in 1995 was about $16.7 billion (Schwartz Affidavit, Table 1). With an unchanged access price, the implied increase in access revenue from the 12.6% increase in minutes is $2.1 billion. Hausman's figure for the *margin* of access above cost, 3 cents/minute, puts the access margin at about half of the average national access price in 1995. Thus, the implied increase in BOC annual *profit* from increased access minutes is less than $1.05 billion.

73. By comparison, let us apply Hausman's projected price reduction of 18% to the entire interLATA market and assume that the BOCs market share within a few years would be 20%.[24] The BOCs' resulting interLATA retail revenue would be $7.1 billion.[25] The BOCs' profit from this $7.1

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[23] In fact, the likely decrease is far smaller for business customers, as well as for many high volume residential customers, since competition for such customers is generally acknowledged to be stronger, leaving far less room for price reductions than in the case of low volume residential customers.

[24] For example, Professor Schmalensee cites a Yankee Group study indicating that BOCs could capture 10-15% of the market within 18 months of entry (Schmalensse Declaration on behalf of BellSouth in the South Carolina application, at paragraph 21). Within 18 months of its interLATA entry in 1996, GTE has already captured close to 10% of presubscribed long distance lines in their service areas, and without being a vigorous price competitor. SNET is said to have captured about 30% of long-distance lines and about 20% of revenues.

[25] Long-distance revenue net-of-access in 1995 was $50 billion (Schwartz Affidavit, Table 1). Since only 77% of interLATA minutes originate in BOC regions, suppose that so does 77% of the revenue, or $38.5 billion. Assuming Hausman's price reduction of 18% and output increase of 12.6% due to BOC entry, the new revenue would be about 92% of the old figure (0.82Px1.126Q = 0.92PQ), or $35.4 billion. A 20% share of this is $7.1

billion in interLATA retail revenue is likely to exceed the extra $1.05 billion profit from increased access minutes. For the ranking to be reversed, two things would have to hold: (a) typical IXC costs of providing interLATA services would have to be high relative to revenues; *and* (b) the BOCs' cost of providing interLATA retail services would have to be not significantly lower than those of a typical IXC. Condition (a) contradicts claims of certain BOC experts (such as Professor MacAvoy) that IXCs earn enormous profits; condition (b) contradicts BOC claims that their entry would realize substantial economies of scope from joint provision of local and interLATA services. Thus, if the BOCs' increased profit hinged primarily on expanded access usage, the implied conditions would undermine other BOC arguments for the great benefits that their interLATA entry would deliver. However, I believe that, even today, profit from BOC interLATA entry would come mainly from interLATA retail revenues. More importantly, looking ahead the profit contribution from BOC interLaTA retail revenues is likely to outweigh considerably the additional profit from expanded access minutes. This is because the FCC's Access Charge Reform Order will reduce usage sensitive (i.e., per minute) access charges substantially over the coming years.[26]

74. The key point in stressing that the bulk of BOC interLATA profits are likely to come from retail revenues rather than from increased access minutes is this: an increase in BOCs' share of interLATA revenues might be achieved largely by *diverting* output away from IXCs *not by expanding industry output*. Therefore, it need not hinge on reducing industry price significantly; and hence a BOC may not have strong incentives to cut interLATA prices.[27]

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billion.

[26] For example, see the May 8, 1997, presentation of Professor Joseph Farrell, at that time Chief Economist at the Commission. Average usage-sensitive charges affected by the Order were predicted to fall from 2.8 cents per minute at each end of an interstate call to approximately 1.2 cents per minute at the terminating and approximately 1.4 cents per minute at the originating end by January 1, 1999.

[27] Indeed, if a BOC could capture a sufficient share of the interLATA market without cutting price, it would seek a higher price than prevailing today. This follows from the earlier discussion showing that an integrated monopolist's preferred long-distance price exceeds the current average interLATA price.

2. Disrupting an Allegedly Non-Competitive InterLATA Oligopoly

75. The extent of price reductions (if any) following BOC entry will depend on the competitive interactions in the interLATA market. One view offered by Bell affiants is that IXC's are tacitly colluding to some degree. This view has been espoused repeatedly by Professor Paul MacAvoy. The hypothesis of perfect collusion is inconsistent with estimates of long-distance demand elasticity of 0.7, that is, significantly less than 1; as noted previously, a perfect cartel in such case would have raised price in order to increase revenue and profit. However, assuming for the sake of argument that IXCs are engaging in imperfect tacit collusion, it is not obvious why the addition of one player should destroy such collusion. An alternative outcome is that IXCs would choose to accommodate the BOC. Indeed, there is evidence that the BOCs would like to avoid a price war, including the fact that BellSouth has announced that its prices will be at least 5% below AT&T's, but has not promised the 15-20% price cuts that Professor Hausman predicts.[28]

76. Dr. Crandall and Professor Waverman, while not claiming that IXCs are colluding, argue that much of IXCs' currently high margins are being dissipated by wasteful non-price competition such as advertising, and that BOC entry would reduce margins and therefore also the incentive to engage in wasteful non-price competition. Putting aside the question of just how much of the non-price expenditures are truly wasteful as opposed to valuable to consumers, it is again not obvious why adding a competitor would so drastically alter the nature of competition.[29]

77. I am not suggesting that BOC entry will yield no price reductions. I expect price reductions, and said so in my affidavit. However, the analytical basis for expecting *dramatic* reductions is weak, and I therefore believe that any price reductions would be considerably more modest than projected by some BOC experts such as Professors Hausman or MacAvoy.

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[28] Brief in Support of Application by BellSouth for Provision of In-Region InterLATA Services in South Carolina, September 30, 1997, at 4, 78.

[29] Indeed, conceivably even more would be spent on advertising and other forms of non-price competition in order to "be heard" above the increased noise.

B. Other Reasons Why Estimates of Gains From BOC Entry Are Inflated

78. Professor Hausman's and Professor MacAvoy's figures are likely to overstate the benefits for several important additional reasons, beyond those discussed in Section A above.

1. Not All InterLATA Traffic Originates in BOC Regions

79. Professor Hausman assumes that BOC entry would bring about a price reduction of about 18% and applies this figure to *all* interLATA revenues from residential customers. But in 1995 only 77% of all interLATA minutes originated in BOC service areas (Schwartz Affidavit, ¶ 31). A BOC's impact on interLATA competition is likely to be far less outside its service regions, e.g., in regions served by other LECs such as GTE or SNET; moreover, the BOCs already are allowed to offer interLATA service originating out-of-region.[30] It is therefore inappropriate to extrapolate whatever interLATA price reduction one expects to emerge in a BOC's region—about 18% according to Hausman—also to regions served by non-BOC LECs. Making this correction would deflate Hausman's projected benefits to consumers by about one quarter—even assuming, counter factually, that his projected percentage price reduction in region is accurate.[31]

2. High-Volume Customers Already Enjoy Substantial Competition

80. Second, Professors Hausman and MacAvoy overestimate the scope of the likely price reduction in BOC regions. Even if BOC entry might plausibly yield price reductions of the order of

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[30] The fact that BOCs have made remarkably few attempts to enter out of region also casts doubt on claims by some BOC experts that interLATA markets are so hugely profitable today.

[31] It is certainly true that when evaluating the benefits from increased local competition made possible by a suitable § 271 entry standard one also should focus primarily on BOC regions, not on those served by other LECs. But my affidavit did not attempt to present quantitative estimates of such gains extrapolated to all regions, and therefore is not subject to the criticism that I too "over-counted" the benefits from local competition.

15% to *low-volume* residential customers that do not participate in IXCs' discount plans, the majority of interLATA *expenditures* are made by higher-volume customers who do participate in discount plans and for whom competition already is more intense. For example, AT&T already offers 10 cents/minute anytime, anywhere with a relatively low flat monthly fee.[32] High-volume residential customers subscribing to such plans are likely to see considerably smaller price reductions than those assumed by Professor Hausman.

3. Lessons from the Experiences of SNET and GTE

81. ***Extent of price reductions.*** The significant shares of interLATA residential customers migrating to SNET and GTE in their regions suggest the potential for welfare gains from BOC interLATA entry. However, the 17-18% average residential rate reductions predicted by Professor Hausman based on his interpretation of the SNET and GTE experiences overstates this potential substantially, for at least two reasons.[33]

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[32] A $25-$50/month residential customer on SNET's best rate plan pays 12 cents/minute for anytime, interstate calling. (The same SNET customer would have paid more in the January 1997 time frame used in Professor Hausman's affidavit because this favorable rate schedule was not available at the time.) An MCI customer with the same bill and "anytime" calling plan pattern also pays 12 cents/minute (less on Sundays); an AT&T customer between pays 11-13 cents/minute. For off-peak calling, Sprint's dime-a-minute rates beat SNET's rates for all but the largest residential customers (to whom SNET offers a dime-a-minute), and LCI's 9 cents/minute beats both of them.

[33] As explained shortly, even the price reductions projected based on the SNET record are exaggerated. However, Professor Hausman does not offer good support for his claims that GTE has priced competitively to the same degree as SNET. In fact, available evidence indicates that GTE has not priced aggressively against the major IXCs, but relied more on its in-region brand name recognition. For example, GTE's initial entry pricing strategy was simply to offer volume discounts of 10% off competitors' basic rates for bills of $10/month and 25% for bills of at least $25/month. (See Merill Lynch, Telecom Services - Long Distance, August 12, 1996.) These discounts are comparable to the volume discounts off basic rates that customers could already get from AT&T. GTE today has only two long distance rate plans: one is the flat rate of 14 cents/minute under Total Call, which is only one cent below AT&T's 15 cent flat rate, and is above AT&T's 10 cents flat rate and MCI's 12 cent flat rate available to users who meet some basic volume requirements or pay a monthly fee. The other is the Easy Savings plan, with discounts from AT&T's basic rate for customers with bills of at least $10/month and 25% for bills of at least $25/month. As noted, such customers can obtain similar discounts from AT&T.

82. First, Professor Hausman selectively focuses on certain relatively high-priced AT&T rate plans and fails to consider lower rate plans already offered by AT&T and other IXCs. These low rate plans should induce customers to migrate from the particular, relatively high-priced AT&T schedules that Professor Hausman selected for his LEC/AT&T rate comparison, even absent the availability of SNET or GTE interLATA service.[34] In fact, for the *off-peak* callers that make up the bulk of the residential market, SNET and GTE do *not* offer the best interLATA rates available in their respective territories, *for any customer calling volume*.[35] For *on-peak* calling, competing carriers also have lower rates than GTE *for most service levels*, while the comparison of their rates with those of SNET's is mixed.[36]

83. Second, although Hausman's submissions do not state how he weighted the rate schedules that he does compare, his 17-18% projected average price reduction appears to be based on initial average prices that are computed by weighting prices in discount and non-discount plans according to the number of customers in each. This ignores the fact that customers in discount plans tend to be the heavier users and account for a much higher share of both minutes and total expenditure.

84. This is not to deny that some SNET and GTE customers may well be enjoying better rates

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[34] In his submission in the present BellSouth proceeding, Professor Hausman does mention two of the more competitive standard AT&T calling plans. However: (a) he only compares the least favorable of these with SNET rates; (b) he makes the unrealistic assumption that the average call duration is only four minutes (thereby exaggerating the impact of SNET's shorter billing increments); and (c) he also applies discounts to the SNET rates that, according to SNET's customer representative, are not available on that schedule.

[35] As mentioned, GTE's best off-peak rate plan is a straight 14 cents/minute, anytime rate. For off-peak callers, AT&T, Sprint, and LCI all offer rates that beat GTE's by 30-35%. Sprint's and LCI's respective off-peak rates of 10 cents and 9 cents/minute dominate SNET's offers. (Sprint rebates a further 10% off the bill for customers spending at least $25/month who maintain service for a year.) AT&T's 10 cents per minute off-peak rate matches SNET's.

[36] MCI beats SNET's best on-peak offer for customers with lower calling volumes. Sprint's, AT&T's, and LCI's respective off-peak rates of 10 cents, 10 cents, and 9 cents/minute dominate SNET's offers. (Sprint rebates a further 10% of the bill for customers that maintain service for a year.) For customers using under $25 per month, MCI's 12 cents/ minute anytime beats SNET's 15 cents/minute anytime rate. At calling volumes over $50 per month, SNET's rates are the best of the major players' *standard* offers for callers with heavy on peak use, with the advantage around 10% at $50 per month; less at greater calling volumes. However, SNET's penetration at high calling volumes is disproportionately small, perhaps because of the competitive importance of IXCs' promotional calling plans offering very substantial additional savings at these calling volumes.

as a result of interLATA entry by these LECs. A likely benefit of in-region interLATA entry by the incumbent LEC is its marketing access to its broad customer base. Incumbent LECs that marketed attractive interLATA rates would over time win some customers from incumbent IXCs, improving these customers' welfare directly. Indirectly, such ILEC offers ultimately would be a factor in inducing incumbent IXCs to improve their own offers or speed up the penetration of their more attractive current calling plans among their customer base. However, these effects are not measured well by Professor Hausman's comparisons; he does not distinguish the effect of ILEC entry from the effects of rate schedules already on the market.

85. ***Increased competition even absent BOC entry.*** Competition has been increasing in long-distance services to a significant extent even in the absence of BOC entry. AT&T's market share erosion has accelerated over the over the past 3 years as MCI, WorldCom, and particularly the smaller carriers have gained market share.[37] AT&T and its rivals have introduced residential rate plans that have reduced generally available rates.[38] Various Wall Street analysts refer to long-distance service as becoming increasingly a "commodity," and cite increased competitive pressures from resellers and smaller carriers.[39] Thus, it is misleading to argue that prices with BOC entry would be lower than without it by about 15-20% *in steady state*.[40] Rather, BOC entry would accelerate and

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[37] See FCC "Long Distance Market Shares " Chart 2 and preceding tables, October 10 1997.

[38] Nonpromotional plans available to all residential customers include *One Rate Plus* ($4.95 per month plus 10 cents/minute, anytime [AT&T]); *Simple Rate* (10 cents/minute, 7pm-7am, weekends; 25 cents/ minute, 7am-7pm [AT&T]); *MCI One Rate Plan* (12 cents/minute, anytime, for customers using more than $15 a month, and 15 cents/minute, anytime, for smaller customers; 5 cents/minute on Sundays for both type of customers); *Sprint Sense* (10 cents/minute, 7pm-7am, weekends; 25 cents/minute, 7am-7pm); *The LCI Difference* ($3 per month, waived if the bill is more than $15; 9 cents/minute, 7pm-7am, weekends; 15 cents/minute, 7am-7pm).

[39] See, for example, Merrill Lynch, Telecom Services - Long Distance, 12 August, 1996.

[40] For example, Professor MacAvoy lists "conservative" estimates of annual consumer benefits in Michigan of $0.4 billion ($1.9 billion for all of Ameritech's region) and puts the present value of this benefit stream at $5.5 billion ($23 billion for all region). This presumes that BOC entry gives a *permanent* increase in competition, as opposed to merely accelerating its evolution, as it presumes that consumers would get an additional $0.4 billion *each year* with Ameritech entry than without it (MacAvoy Michigan Reply Affidavit, July 2, 1997, p. 5).

perhaps deepen the already intensifying competition. Barring consolidation, this competition would bring interLATA prices lower even without BOC entry. The added reduction in prices that hinges on BOC entry is therefore likely to diminish over time.

III. CONCLUSION

86. My purpose in this affidavit is not to engage in skirmishes over quantification of the exact benefits and costs of BOC entry, an exercise that I view as quite speculative. Rather, my purpose is twofold. First, I want to suggest—based on the analysis of Part I—that there is a broad range of plausible assumptions under which the gains from increased local competition will comfortably outweigh any likely loss due to delayed BOC interLATA entry. Second, I want to identify the numerous and serious exaggerations in some of the figures that have been touted.

87. The Section 271 entry authority is a key, if not the key, tool for prying open local markets. Therefore, it is also the key to ensuring that all providers are able to compete on an equal footing in offering integrated services that require the now-monopolized local inputs and services. The Department of Justice's Open Local Market Standard strikes a good balance between the costs and benefits of delaying BOC entry as needed to accomplish the competition goals of the Telecommunications Act, and is likely to accelerate considerably the development of competition in local and in integrated services compared with a more lax standard. It need not impose an onerous delay in BOC entry. And it ultimately will result in less intrusive regulation than would a policy that authorizes BOC entry prior to full implementation of the main new systems required for local competition and instead counts on regulators to disentangle the mess later.

I hereby swear, under penalty of perjury, that the foregoing is true to the best of my knoweledge and belief.

Marius Schwartz

Subscribed and worn before me this 3 day of Nov. 1997.

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