

Seminar Presentation:
"Analysis of Long
Distance Issues"

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"ANALYSIS OF LONG DISTANCE ISSUES"

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Edited Remarks of Speakers

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There are two kinds of current events that I want to talk about. One is the style of FCC decision that seems to be coming down the pike. The economics behind at least one of these recent decisions--concerning the assessment of optional calling plans--are particularly fascinating to me. The issue is whether or not a particular designed OCP, say by AT&T, is predatory or competitive. There has been a lot of controversy about this over the last few years, and the FCC issued a ruling a few weeks ago which, at least by my innocent reading of it, looks terrific.

The second subject is current events in the marketplace for long-distance service--not regulatory, but rather real life problems: who is building what; what are the latest changes in technologies, what are the latest trends of competitive significance.

What did the FCC say about the OCPs? After about two years or more of holding up OCPs on the grounds that the analyses were dicey. The FCC has adopted a method for assessing whether an OCP is good for society or whether it is predatory. As I read it, the ruling said the issue is whether introducing an optional calling plan will increase AT&T's net revenues. In other words, will it add to the profitability of the firm, over some sort of reasonable test period--e.g. two or three years.

In its OCP decisions, the FCC scores one for rationality by using an incremental rather than fully allocated cost measure. Immediately we see something good in the air. The situation gets

tricky, though, because of access charges. Some of these only cover non-traffic sensitive (NTS) costs. These costs are not caused directly by the traffic at issue, but rather by the mere existence of a local loop someplace else. The FCC's policy has been, at least by default, to continue the status quo of pushing some of those costs onto long distance charges on a permanent basis at the user's point of connection.

What are we to then make of an OCP that has a price on average--and maybe on the margin--that in everybody's eyes covers the true traffic-sensitive costs but doesn't cover non-traffic-sensitive costs? Is that an indicator of predation, because in some sense price might appear to be less than cost? Or is it truly competitive because the price covers the underlying economic cost? It's really a tough issue to figure out, and has stalled the FCC for several years.

AT&T came up with a brilliant idea. They said "let's act as if the total sum of NTS costs that fall on long-distance carriers is essentially capped at some total figure." Maybe it will be; some states really do it that way. At the federal level it's always renegotiated. Whether that amounts to a cap is open to interpretation. That is the kind of thing that a commission can sit around and muse about. It's not an economic issue, but rather an issue of ambiguous fact.

So let's pretend that policy really caps the totality of NTS charges. Along comes AT&T and says "well if traffic rose, then the additional traffic will add to the traffic base, and thereby

when that total NTS amount is divided by the totality of traffic, the per minute charge will go down. That will be a real savings to us, as well as everyone else in the industry who has to pay those damn things. So that's a real cost saving; it's an increment to our net profits; and we ought to include that in our study of net profitability."

Is AT&T's idea good or not? If net profitability is what we're after, then surely this true-up effect is relevant. If predation under the anti-trust laws focuses on whether or not an act is profitable in and of itself--without consideration of any later monopoly power that the act might produce--then this may make sense. We should look at the real net profitability of the act to AT&T. And if by chance it kills off some OCC's we'll all weep and moan; but we cannot say that AT&T acted because of impended later monopolization. It will have been profitable in its own right. On the other hand, if the act is not profitable in its own right, it may have been motivated by killing off somebody and creating some monopoly power that could be profitable later. So that's the standard antitrust threshold of predation, and it makes a lot of sense economically.

You even could prove that efficiency is enhanced by rules of this kind in the antitrust world. Here, life gets a bit more complicated. People with good intentions and sharp pencils claim that carriers with bigger market shares will experience more of the gain from a decrease in the per minute access fees to cover NTS costs. If you've got 80% of the market measured in terms of

minutes of traffic and are paying 80% of those NTS costs, a drop in the per minute NTS charge is a big saving, but a relatively small saving for a smaller carrier. This could give bigger carriers an anti-competitive advantage in the marketplace. In other words, an OCP would be profitable for a bigger carrier, but unprofitable for a smaller carrier, because the smaller carrier gets less of a benefit from the true-up effect. That concern will surface only through the stimulation of the adversarial process.

One of my recent papers shows that, when you take into account the ability of competitive carriers to respond to the OCP that the biggest carrier initiates, the FCC's plan is really terrific. Just looking at net profitability and taking into account the true-up effect permits good OCPs to go into effect. And they're good for a variety of reasons. These OCPs are good because they offer consumers lower prices and more options. They're good for the carrier because, the carrier wouldn't introduce it if it wasn't profitable.

But what about the rival carriers, and the state of competition? My analysis shows that it's even good there. If an OCP is good for the carrier then it will still be good after a competitive response by the carrier's rivals. Why is that? If the other carriers respond in kind, they too will be generating new traffic, which will drive the per minute NTS charges yet further down--which benefits the big carrier even more than the little carrier. The matching of the OCP by the little carrier

will switch some of the traffic back that would otherwise have been diverted from the OCC to AT&T, but that's not really painful for AT&T, because that traffic moving back and forth doesn't change the base on which these NTS charges are calculated. The real incremental cost of handling this traffic as it moves back and forth between an OCC and AT&T thus doesn't include any true-up benefit.

If the price is below the total of NTS costs, then the price really isn't covering the full cost to the carrier of handling traffic that diverts from an OCC. A competitive response thus is actually a benefit to the big carrier. So the first step of the argument is that if the OCP looks profitable without the competitive response, it will look even more profitable after a competitive response.

That's the first leg. The second part of the argument is that the other common carriers ("OCCs") also will find the policy to be profitable, as compared to the prior position. So if you compare the status quo before anybody adopted an OCP with the later case where both have introduced the OCP, then both carriers will benefit for exactly the same reason. They will have expanded the traffic base, and lowered their NTS cost responsibility. An OCP thus can't possibly be predatory if it passes the FCC's test, because the OCCs can respond in a way which will be profitable to them. So congratulations to the FCC, and thank goodness we've got a really sound regulatory decision-- it happens now and again. It's also a good decision because it

mimics the thrust of the antitrust law. And to the extent that the FCC moves in that direction, it that free marketplace kinds of principles will apply, which seems entirely appropriate to me. The interexchange market is almost entirely competitive these days, or it certainly will be within a year.

Let me turn to some facts or non-facts to support that wild statement. What's happening in long-distance? I suppose the most pronounced thing is the large glut of announcements of new networks with tremendous capacity. Everybody and his brother seems to have announced in the last year or two that they're about to build the world's biggest and best fiber optic network, covering the major U.S. population centers. In fact, a Fortune article about ten months ago said that if you add up all the announced plans, they came to about five billion circuit miles of new capacity. At about the same time, AT&T had told the FCC that it was using about one billion circuit miles in its own operations. Taking that to be a rough indicator of the size of the industry, Fortune projected a five-fold increase in the industry's capacity coming on-line some time around 1986 or 1987 -- an extraordinary tale, that no doubt upset Wall Street.

I suppose the article upset people in the industry to the extent that they believed it, but it delighted me and other crazy economists, because it meant there's no holding back competition any more. The LATA system, which is coming into place, concentrates traffic to get around any possible scale economy barriers. The Justice Department looked into that and the facts seemed

pretty consistent. Open skies, loads of satellites floating around, portable earth stations, marketing efforts on all sides, new systems coming on-line, OCC s using Sears Roebuck for billing and Avon for a sales force -- what's the problem? This is a real honest-to-God competitive market.

This sounds really great to us economists. The only possible fly in the ointment might involve terrestrial facilities, which are a big capital item. Moreover, new networks create really big costs. If you're going to dig up the ground and put in coaxial or fiber optic cable, this is not a reversible investment. Once you commit to, you're stuck with it. And knowing that, economic theory says that carriers will be quite careful about making those investments. The result of a sum cost entry barrier of that kind, of course, is that if the incumbents raise the price a lot, entrants still are going to think twice about committing the money to come in under that price and carry away the traffic, because they can't get their money back if the market turns sour later on. So we still have a real concern about the sum costs involved in building competing terrestrial facilities. Maybe you don't have to worry because satellites can take care of it. But still, there's a lingering doubt that the entry barrier exists and is important.

Doubts also remain about whether the new technology, fiber optic, is making the industry into a natural monopoly again. Maybe microwave is not a natural monopoly technology, but maybe fiber is. And the engineering cost studies make it look that

way, since the scale economies seem to go on out forever with fiber. So that's another nagging worry, that concerns a number of people.

A third issue is that the OCCs costs really may be structurally higher than AT&T's, and that after everything's said and done, after the premium and discount are erased as they should be, the OCCs long run costs are really substantially higher than AT&T's. Competition then couldn't work, or at least couldn't keep prices down as well as regulation would.

Those were some nagging concerns. But this new campaign of building fiber optic cable lays all of those issues to rest at one stroke. With all that cable in the ground, there's no more entry barrier. Those folks who laid the cable may be damn sorry that they did it, but who cares? We're economists; we don't care if people lose money. The facilities are there and will be used, which means that if the prevailing marketplace price goes up high enough to cover not long run costs, but just short run costs, then competition will keep prices down to a nice low level. So the sum cost problem really is solved if those networks go into the ground as they are supposed to be.

As to the natural monopoly problem, who cares? It's a moot question if five huge networks already are in place. Maybe in retrospect we'll realize that this building campaign was a waste of social resources, but that's a bygone, we don't have to worry about it anymore if there are five new networks in place by the end of the year. So the natural monopoly issue doesn't matter.

What about this cost comparison issue? Again, that's long run planning. That's a matter for the investors, the OCCs and AT&T to worry about; once those facilities are sunk, those costs are moot. What matters instead are the ongoing costs of those facilities. So all the tough issues disappear, if those networks really are going into the ground.

What other issues might come up if you assume that the networks are there? One question is whether they really are ready to go once the fiber is in the ground, or whether they have only "engineered capacity"--i.e., that some of the basic capability is there but you still have to take additional costly steps to really fire the stuff up. The other question is that the fiber's in the ground, but the switching may not exist. No-one ever said the switches were there, and you can't have a working network without the electronics at either end. The costs of firing up cable that's in the ground (turning engineered capacity into operational capacity) is really small--about 5% of the total price of long distance service these days on a message basis. So there's no real problem there. These new entrants thus don't need much of a price rise to take the risk of investing that extra 5%, once the cable's already in.

What about switching? First, switching now is moving towards off the shelf designs. This means that you don't have to put in special orders, at least not with all suppliers; instead, they carry inventories of switches which are pretty well suited for long distance transmission needs. Second, switching is moving towards modularization. This means you don't have to buy

big machines all at once; you just have to buy the frame, some of the basic intelligence, and sound fairly limited and inexpensive port capacity. Then if your needs grow, you buy some more units and just plug them in. Moreover, the fact that they just plug in means they're very portable. You plug them in here because you're hoping for some business. If the business goes away, you unplug them and move them someplace else, and plug them in there. Or you can even sell them to somebody else down the road -- the guy who took your business away needs some more units. So, modularization and portability mean that there are no entry barriers because of investments. So even if the OCCs don't have the switches in place now, there's no possible competitive problem involved with switching. The bottom line of this discussion is that if all that fiber capacity is going in as announced -- and "all" is impossible, the marketplace should take care of itself.

Of course, carriers have every incentive to announce overly optimistic plans, in the hope of dissuading others from coming in. But dissuasion clearly didn't work, because everybody and his brother made these announcements. The real question is how many of those announcements truly will come to pass. If there is enough capacity in the marketplace, AT&T would be vulnerable to losing a large share of its business. So, it may decide to play a monopoly strategy instead of a competitive one.

Competition keeps firms doing things that are good for consumers, because of the fear that otherwise customers will

leave. They'll only leave if there are other facilities available to serve them. The real possible sticking point is capacity, on terrestrial optical fiber. So the issue is whether there will be or is enough capacity to make competition really affect AT&T.