

the customers of the CLEC.¹⁹ Moreover, this problem does not disappear as CLECs serve a larger share of the market. Even CLECs that are substantially larger than those that currently exist will have incentives to impose access charges that exceed the monopoly price because, as shown in the appendix, a CLEC is able to capture monopoly rents from both CLEC and ILEC customers. As a result of the CLEC's pricing behavior, all consumers pay higher long distance rates than they would in a competitive market, leading to reduced output and welfare losses to both ILEC and CLEC customers.

Although the current regulatory regime encourages a profit-seeking CLEC to charge excessive amounts for access, a number of factors may cause a CLEC to charge less than the full, profit-maximizing rate that the model predicts. Each of these considerations reflects the fact that the CLEC may take into account the long-term reactions of IXCs, or of regulators, if their access charges exceed some level. Among the most important are the following considerations. First, IXCs would have a greater incentive to block all calls from a CLEC if its access charges became too high. Second, IXCs would have a greater incentive to develop technologies and policies that would permit them to charge higher retail prices to customers who place calls through CLECs that have high access charges. Third, CLECs might engage in voluntary restraint if they thought that excessive access charges might lead to regulation. Nonetheless, as the next section demonstrates, these considerations are not sufficiently important to prevent CLECs from imposing access charges far in excess of those charged by ILECs.

¹⁹ In effect, rate averaging permits CLECs to "externalize" the effects of excessive access charges by shifting a large percentage to customers of other LECs, most prominently to customers of ILECs. A similar phenomenon has been referred to as "the 'exploitation' of the great by the small." See Mancur Olson, *The Logic of Collective Action*, Cambridge: Harvard University Press, 1965, p. 35.

V. CLECS DO CHARGE EXCESSIVE ACCESS CHARGES

The discussion to this point demonstrates that CLECs can charge excessive prices for access due to their bottleneck monopoly, and that the regulatory regime, combined with the CLECs' economic self-interest, encourages them to charge excessive prices. Evidence demonstrates that CLECs do indeed charge excessive access prices.

Using information provided to us by Sprint, we examined access charges from all CLECs with billings to Sprint that exceeded \$5,000 per month for September 1999, the most recent month for which data were available. The bills covered approximately 90 billing areas, although fewer than 90 CLECs are involved because several carriers serve more than one billing area. The access charges of these CLECs were then compared to the charges of the ILECs serving the same billing areas.

The data were taken from invoices submitted by CLECs and ILECs to Sprint. The average charge per minute was calculated separately for interstate and intrastate access by dividing the total charge by the number of minutes provided. The CLEC access charge was then compared to the average charge of the ILEC that serves the corresponding geographic area.

The average CLEC access rate exceeds the average ILEC access rate by a substantial amount. As shown in Table 1, the unweighted average charge per minute for the CLECs is \$0.0387 for interstate access. In contrast, the unweighted ILEC access charge averages only \$0.0086 per minute.

Table 1
Interstate Access Charges
(Average Charge Per Minute, In Dollars)

	CLEC	ILEC
Average Rate	0.0387	0.0086
Standard Deviation	0.0204	0.0032
Max	0.0825	0.0247
Min	0.0118	0.0051

CLEC access charges exceed ILEC access charges in every one of Sprint's billing areas examined (i.e., for CLECs whose monthly billing to Sprint exceeded \$5,000). As shown in Table 2, the smallest ratio of CLEC to ILEC charge was 1.176 and the largest was 14.72. On average, the ratio of CLEC to ILEC access charge is 5.06.²⁰

Table 2
Average Ratio of CLEC to ILEC Access Charge

	Interstate
Average Ratio	5.0627
Max	14.7239
Min	1.1759

The difference between CLEC and ILEC access charges is somewhat less pronounced for intrastate service, although CLEC charges exceed ILEC charges in 69 of the 83 intrastate comparisons. The unweighted average charge per minute for

²⁰ This average ratio is an unweighted average across the 90 billing areas in the Sprint data.

CLECs is \$0.0433 (see Table 3) and \$.0258 for ILECs. As shown in Table 4, the unweighted average ratio of CLEC to ILEC access charge is 2.35.

Table 3
Intrastate Access Charges
(Average Charge Per Minute, In Dollars)

	CLEC	ILEC
Average Rate	0.0433	0.0258
Standard Deviation	0.0226	0.0171
Max	0.0970	0.0581
Min	0.0070	0.0061

Table 4
Average Ratio of CLEC to ILEC Access Charge
(Charge in Each Area)

	Intrastate
Average Ratio	2.3525
Max	8.2111
Min	0.4206

Although the information presented in this report is based on Sprint's experience with access charges imposed by local exchange carriers, we note that it appears to be consistent with the experience of another large long distance carrier, AT&T. In its 1998 petition regarding access charges, AT&T submitted an appendix that compared access charges it faced from CLECs and ILECs.²¹ AT&T reported that CLEC interstate access

²¹ Petition for Declaratory Ruling In The Matter of Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers, CCB/CPD 98-63.

charges averaged several times those of ILECs in the same region, and that the maximum ratio was nearly 20 times the ILEC rate. Similarly, the intrastate access charges on average exceeded those of ILECs, although the ratio was smaller than for interstate access. Although almost one year has passed since the AT&T petition was filed, it appears that the overall experiences of AT&T and Sprint have been similar, and that the problem of excessive CLEC access charges has persisted.

Finally, it is of some interest that, for the five CLECs that impose the largest access charges on Sprint, over 90 percent of minutes charged are for termination or for 800/888 “open end” services. Apparently, the bulk of the customers of these CLECs obtain their originating long distance service from the CLECs themselves, so that these CLECs, in effect, pay originating access charges to themselves.

VI. ANALYSIS OF PROPOSALS TO CHANGE FCC POLICY ON CLEC ACCESS CHARGES

The analysis presented above demonstrates that CLECs impose access charges on IXCs that far exceed those imposed by ILECs. In the case of terminating access and “open end” (880/888) services, the overpricing results primarily from the fact that the paying party does not choose the LEC. In the case of originating access, the overpricing results primarily from the fact that CLEC access charges are averaged into the per-minute rates that IXCs charge all customers.

In requesting comments on proposals for dealing with excessive access charges, the NPRM (FCC 99-206) states a preference for market-based solutions to the extent feasible.²² From the point of view of economic incentives, the first best policy would be

²² FCC 99-206, ¶238.

to have economic decisionmakers face the full cost of their decisions. Such a solution, relying entirely on market forces, would abandon the policy of imposing uniform long distance rates based on averaged access charges, have the calling party pay for originating access, including originating access for 800/888 calls, and have the receiving party pay for terminating access. This would serve to make the party that selects and uses the services of a particular local exchange carrier (whether ILEC or CLEC) recognize, and pay, the full price that the LEC is charging. If a particular CLEC wishes to charge access prices that are above those of an alternative ILEC or CLEC provider, users can evaluate the entire package of services and charges in light of their calling patterns and make informed decisions free of price distortions. If customers find that the services offered do not justify the costs, either competitive forces will drive down the CLEC charges, or its customers will switch to alternative suppliers.

The NPRM requests comments on an alternative policy that offers several advantages over the present policy:²³ Under this alternative, a CLEC's access charges to the IXC could be less than or equal to the ILEC access charges in the same area. If the CLEC wishes to charge an amount greater than the ILEC's rate, the CLEC is required to collect it directly from its own consumers (the "escape valve" provision).²⁴ This proposal goes a long way to addressing the problem of monopoly pricing identified above, while minimizing the amount of regulatory interference with market forces. By requiring the CLEC to charge no more than ILEC rates, the proposal substantially reduces the access prices charged by CLECs.²⁵ Furthermore, by prohibiting the CLEC

²³ FCC 99-206, ¶247.

²⁴ FCC 99-206, ¶249.

²⁵ Using the ILEC access charge as a benchmark would permit an efficient CLEC to recover its costs.

from collecting these excess amounts from all IXC customers, the proposal eliminates the ability of a CLEC to impose costs on ILEC customers, thus reducing efficiency and welfare losses that afflict the present system.

The proposal also reduces substantially the regulatory burden that might otherwise be required in a review of individual CLEC rates. The Commission already reviews the ILEC access charges for reasonableness. Thus, no incremental regulatory burden is introduced by using this as a benchmark or “bellwether” rate. Under this proposal, a CLEC that has an efficiency advantage, or the ability to offer customers a more attractive package of services, is still free to do so.

Appendix

ECONOMIC ANALYSIS OF CLEC MONOPOLY PRICING

The purpose of this appendix is to analyze the economic incentives facing CLECs under the current Commission policy for access pricing. In this discussion, we demonstrate that a profit-seeking CLEC is encouraged by the Commission's policy to charge excessive amounts for access. Indeed, the Commission's policy leads the CLEC to charge more for access than would a "normal" monopolist.

A number of assumptions underlie the model presented here:

- Access fees are applied on a per-minute basis to long distance (interexchange) calls.
- The IXC recovers access charges by adding the charge to its per-minute price. It recovers the full amount of access charges—no more, no less.
- The IXC does not charge different prices for calls initiated through different local access providers (CLECs or ILECs).
- The ILEC access charges are set independently of the CLEC access charge.
- Access charges imposed by an ILEC are regulated but CLEC access charges are not.
- Once customers have selected their local exchange carrier, their demand for long distance minutes is determined by the price per minute that they face.
- The demand for long distance minutes faced by the IXC is the sum of the demands of ILEC and CLEC customer.
- CLECs maximize profits.

Figure 1 illustrates the starting point for our analysis. The number of users enrolled by each LEC determines the total number of long distance minutes demanded. In this illustration, S is the supply curve for a particular IXC, assumed to be horizontal in the relevant range. This supply curve includes the IXC's charge per minute P_o for using its services, and the (uniform) price per minute, P_a , to recover the (regulated) ILEC access charge. In Figure 1, where the CLEC is assumed to impose the same access charge as the regulated ILEC access charge, the equilibrium number of minutes of long distance calls supplied by this IXC is Q^o_i through the ILEC and Q^o_c through the CLEC.

If, however, the CLEC is free to set any level of access charge that it chooses, and the CLEC acts as a profit-maximizer, in general it will not set the same access charge as the regulated ILEC rate. Under current pricing practices, the IXC pays the CLEC's access charges, and then spreads these charges over all minutes of long distance service it provides. As a consequence, the price of long distance service faced by a CLEC's customers will increase by only a fraction of any increase in its access charge. For example, if the CLEC supplies 20 percent of access minutes, and the ILEC supplies the balance, a \$1 per-minute increase in the access charge imposed by the CLEC will increase average access charges by only \$0.20 per minute. The effect is that the CLEC's effective demand curve becomes steeper, and thus less elastic, than if access charges were not averaged.

In Figure 2, we assume that the CLEC's customers demand a small fraction of the IXC's long distance minutes.²⁶ Because CLEC customers represent only a small fraction of all IXC minutes, the price of long distance calls to its customers increases by

²⁶ The demand curve shown in Figure 2 is drawn for a particular share of IXC minutes demanded by CLEC customers and becomes steeper the smaller is this share.

only a small fraction of any increase in the access charge it imposes above the amount charged by the ILEC.²⁷ Thus, when it increases access charges, the effect on the minutes of long distance calls made by its customers, and thus on the access revenues it receives, is smaller than if its customers faced the entire increase in access charges in their long distance rates. The smaller is the share of the CLEC in the minutes provided by the IXC, the larger is the disparity.

Even a CLEC with a marginal cost of supplying access at or below that of the ILEC will impose a higher access charge than will the ILEC. Figure 2 illustrates the case in which the CLEC's marginal cost is exactly the same as the ILEC's regulated access charge, P_a . Because an unregulated profit-maximizing CLEC will set its access charge at the point where its marginal cost equals its marginal revenue, the new equilibrium price for long distance calls is P^* , a price at which the CLEC customers consume Q^M_c minutes and ILEC customers consume Q^M_i minutes. The increase in the CLEC's charge above the amount charged by the ILEC is $(P^M - (P_o + P_a))$ per minute. This increase results both from the fact that the CLEC rate is unregulated and that CLEC customers purchase only a small fraction of the long distance minutes supplied by the CLEC.

Because of the excess CLEC access charge that is applied to the ILEC's customers, the ILEC's customers pay more (P^*) and consume fewer long distance services (Q^M_i) than they would without this additional charge. The CLEC collects monopoly rents equal to its excess access charge, $(P^M - (P_o + P_a))$ multiplied by the

²⁷ If the CLEC charges an amount above the ILEC's access charge, the price of all long distance minutes will rise by $(Q_c + Q_i)/Q_c$ multiplied by the price increase, where Q_c is the number of minutes supplied through the CLEC and Q_i is the number of minutes supplied through the ILEC.

number of minutes Q^M_c of long distance service its customers consume, as shown in Figure 2. Because the CLEC's access charge is spread over all IXC calling minutes, a portion of these rents equal to $(P^* - (P_o + P_a))$ multiplied by Q^M_i is collected from ILEC customers.²⁸ The monopoly rents thus represent a transfer from both CLEC and ILEC customers to the CLEC. In addition, there is a deadweight loss shown by the sum of the triangular areas labeled "Loss" in Figure 2, which represents reduced overall economic welfare.

As noted above, the markup of the CLEC's access charge over its marginal cost varies inversely with the CLEC's share of calls. Although the percentage increase declines as the CLEC's market share rises, the CLEC will always charge an access fee that exceeds its marginal cost. Thus, although the magnitude of the increase diminishes with increased CLEC market share, an unregulated CLEC—or, for that matter, an unregulated ILEC—will charge an amount that exceeds the competitive price.

²⁸ This amount is identical to the area $(P^M - P^*) Q^M_c$ shown in the left panel of Figure 2.

Figure 1

Illustrative Demand for Long-Distance Minutes

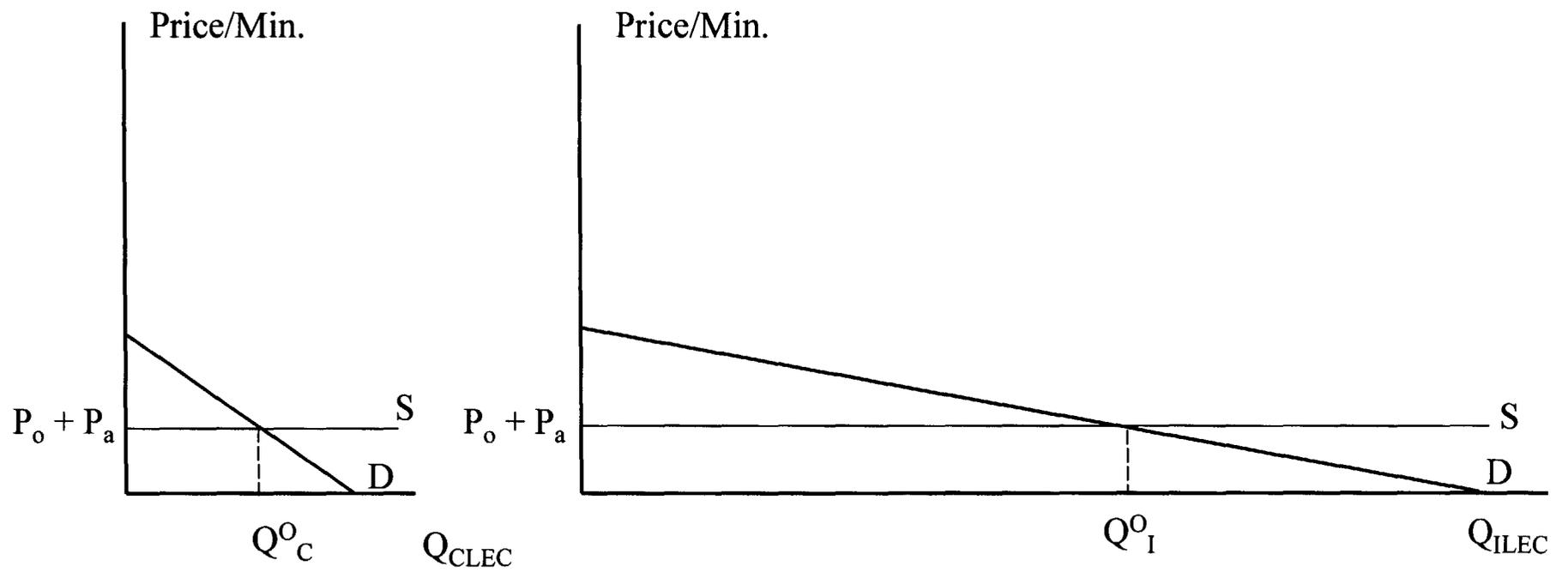


Figure 2

Illustrative Access Pricing When a CLEC Maximizes Profits

