B. The Geographic Market

1. Generally

In each merger, the geographic market also needs defining. As with product markets, a merger may involve more than one geographic market. A geographic market is the area of effective competition—the area in which buyers can practically turn for alternative sources of supply or in which there are sellers who could act to restrain the prices charged to those buyers.(110) In *United States v. Philadelphia Nat'l Bank*,(111) the Supreme Court stated that the most important criterion is the geographic structure of supplier-customer relations.(112) "[T]he area of effective competition in the known line of commerce must be charted by careful selection of the market area in which the seller operates, and to which the purchaser can practicably turn for supplies.(113)

The *Horizontal Guidelines* define a geographic market similarly: "a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that region would profitably impose at least a `small but significant and nontransitory' increase in price, holding constant the terms of sale for all products produced elsewhere.(114)

Thus, as with product markets, the judicial definitions of geographic markets are multifaceted and subjective, and the *Horizontal Guidelines* focus exclusively on price and pose a hypothetical question for which direct evidence is scarce.

2. Mobile Service Coverage

Both the case law and the *Horizontal Guidelines*' definitions focus on the area to which buyers can practically turn for alternative sources of supply. In the case of manufacturing, this area may be worldwide. Most mobile services, however, are manufactured close to where the customer uses them; typically at a radio tower within a few miles of the customer. For example, a customer wanting cellular service in Philadelphia can only receive service from providers in Philadelphia. That customer cannot go to Chicago or Asia, obtain service there, and then bring it back to Philadel phia. Therefore, geographic markets in mobile services mergers are likely to consist of one or more coverage area(s) of the systems providing services in the product market. A brief summary of the great variances between major service coverage follows.

a. Cellular

The Commission initially licensed cellular systems in 734 Metropoli tan or Rural Statistical Areas, each of which was specified by the Commission. In most areas, the two cellular carriers have built towers to provide coverage over the identical Commission licensed territory. Many licensees in neighboring markets have combined their systems, thus, creating single systems with metropolitan coverage. One cellular system, for example, covers the greater Philadelphia area—Philadelphia, Allentown, and Lancaster, Pennsylvania; Trenton and Princeton, New Jersey; and Wilmington, Delaware.(115)

b. SMRs

Traditionally, a SMR's coverage was a twenty- to thirty-mile radius around each SMR tower, and the tower's location was chosen by the SMR. As a result, original SMR coverage areas, unlike cellular ones, were small and often partially overlapped. Now, however, many SMRs are consolidat ing into a few national chains, which will offer local, regional, and even national coverage; a few local systems are likely to remain as niche competitors in most markets.(116)

c. Paging

The coverage of a paging system may be local, metropolitan, regional, or national depending on the license that the Commission has issued and the mergers that licensees have affected. Wide-area coverage is growing in popularity.(117)

d. PCS

Broadband PCS blocks A and B will be licensed for forty-seven territories, some of which are almost the size of Texas, and the other four blocks will be licensed for 493 areas that are somewhat larger than the original cellular territories. Coverage will probably start in central cities and grow outward, which is what happened in the early years of cellular service. Of the narrowband PCS licenses, ten will be national, thirty will be regional, and more than 3500 will be for smaller areas. Unlicensed PCS will have very small coverage, similar to CB radios and cordless tele phones.(118)

e. Other

Air-ground and satellite systems have national coverage. Each public coast maritime station has coverage within approximately twenty-five nautical miles of each tower.(119) A typical CB radio or a walkie-talkie has coverage of no more than a few miles. Private and federal government systems are a mixture of local, regional, and national coverage.

f. Contradictory Trends

There are several contradictory trends in coverage of mobile services. As existing carriers merge, wide-area licenses for PCS are issued, and satellite systems go into service, larger coverage becomes possible. This coverage is often offered to customers. At the same time and in evident anticipation of broadband PCS, cellular carriers are offering customers the option of smaller coverage for smaller charges. Finally, mobile services increasingly will be provided by large, centralized corporations, each of whose systems has the same or similar quality, pricing, features, and "look and feel."

3. Precedent

The decisions of the Commission and the DOJ concerning geographic markets show more consistency than those concerning product markets. In considering the merger of a cellular service company, McCaw, and AT&T, the Commission and the DOJ used the cellular service areas ordained by the Commission as geographic markets.(120) In its recent decision approv ing the merger of the two cellular carriers, the Commission's Wireless Telecommunications Bureau used as its geographic markets "the areas in which [either of the merging companies] provides cellular service.(121) The DOJ posited the geographic market in recent SMR mergers to be "the license areas in which the FCC has authorized the provision of SMR service" and "[i]n any particular city . . . the twenty-five mile radius from city center . . . .(122) The Wireless Telecommunications Bureau, in its review of the same SMR mergers, accepted the DOJ's position for the sake of argument without approving it.(123)

4. Possible Geographic Markets

The starting point for defining a geographic market in a mobile services merger is the coverage area of each system which provides a service that is within the product market and that is operated by one of the merging companies. Each such area might be expanded to include the areas for which the merging company is licensed but is not yet serving.(124) Moreover, each area might be further expanded to include the coverage of other services that are in the product market and that have larger geograph ic coverage. However, where expanded coverage is only used by a small proportion of the customers within the merging company's area, there may be no justification for expanding the geographic market.

As a final alternative, there is case law finding that the geographic market is nationwide when a service, even a local one, is provided by centrally managed companies that plan and operate on a national basis.(125) Certainly, the trend in wireless service is towards regional and national chains under central management,(126) but that is still the exception rather than the rule and is likely to remain so for several years.

Current proclamations of an emerging "national market for mobile services," in the sense that the term "market" is used in competitive analysis, are inaccurate. For example, it is frequently said that mobile customers now demand "seamless nationwide service.(127) However, a recent WTB decision found that such talk does not imply a regional or nationwide market. Rather, it means one of two things. First, customers may want roaming,(128) which existed from the conception of cellular service.(129) A second possibility is that some customers prefer a product that has a nationally recognized brand name, but that is produced and consumed in each local community. For example, a given cellular carrier's mobile service may seem larger than another carrier's because it has a brand name—Cellular One, for example—that is recognized by many communities all over the country. In each of those communities, however, the customer may choose from among the only two companies that offer cellular service. In such a case, the geographic market ultimately remains that community.(130) Thus, the geographic market in a mobile service merger is likely to be each merging company's coverage area or its larger licensed territory, until a regional or national market emerges.

After the geographic market for a merger has been defined, the definitions of both the product market and the geographic market are combined into a statement of the "relevant" market for purposes of analyzing the competitive effects of the merger, such as mobile telephone service in the Philadelphia metropolitan area.

C. Horizontal, Vertical, or Conglomerate?

The final definitional question about a merger asks whether the merger is horizontal, vertical, conglomerate, or a combination. The answer to this question will influence the depth of scrutiny given to the merger's competitive effects because each type of merger is generally believed to pose a different amount of risk to competition. Thankfully, after the rigors of defining product and geographic markets, classifying a merger as horizontal, vertical, or conglomerate should be self-evident simply from looking at the names given to the product markets. The three categories of mergers are not mutually exclusive. A single merger may be horizontal in some respects and vertical in others, or it may combine aspects of the three categories in some other way.(131)

A horizontal merger is "between companies performing similar functions in the production or sale of comparable goods or services.(132) For example, a merger of two cellular companies is a horizontal merger. If a cellular company and a paging company merge, and both those services are in the same product market, then it is also a horizontal merger. Horizontal mergers are thought to have the greatest potential anticompet itive effects because they are most likely to eliminate a competitor from the relevant market.

A vertical merger is "the acquisition of one company which buys the product sold by the acquiring company or which sells the product bought by the acquiring company.(133) An example of a vertical merger is when a company that provides cellular service merges with a company that manufactures equipment used in providing cellular service. The McCaw- AT&T merger was such an example. In vertical mergers, anticompetitive impact is usually less than in horizontal mergers because the parties are not competitors.

A conglomerate merger is neither horizontal nor vertical.(134) A merger of a cellular service company and a manufacturer of dog food is an example. Conglomerate mergers usually pose no significant potential anticompetitive effects and, accordingly, this Article will give them minimal attention.(135)

II.The Merits of the Merger

In each relevant market, the competitive effects of the merger must be predicted, and the resulting balance between pro- and anti-competitive effects must be determined to see whether the merger will, on the whole, increase, decrease, or have no net effect on competition.(136) Because horizontal mergers are thought to pose the greatest risk of anticompetitive effects, they are discussed first and in greatest detail.

A. Analysis of Horizontal Mergers

For horizontal mergers, the analytical task can be broken into two parts.(137) First, compare the relevant market's degree of concentration, defined as the amount of power held by a small number of companies, before and after the merger. Second, examine the possibilities for increasing or decreasing certain specific kinds of competitive activity. The first part is commonly done by objective measurements. The second requires a more individualized analysis of conditions in the relevant market and the capabilities and incentives of the competitors in it.(138)

1. Initial Analysis by Objective Measurements

The Supreme Court stated in *United States v. Philadelphia Nat'l Bank(139)* that

"a merger which produces a firm controlling an undue percent age share of the relevant market, and results in a significant increase in the concentration of firms in that market, is so inherently likely to lessen competition substantially that it must be enjoined in the absence of evidence clearly showing that the merger is not likely to have such anti-competitive effects.(140)

An accepted objective measurement of any increase in concentration in the relevant market is the Herfindahl-Hirschman Index (HHI). To calculate the HHI, the "market share" of each competitor in the premerger relevant market is calculated and squared; and then, the squares are summed. The same calculations also are made for the post-merger market. The only change from the premerger market will be the larger market share of the merged company. The difference between the pre- and post-merger sums is an objective estimate of any resultant change in market concentration.

The *Horizontal Guidelines* provide that a post-merger HHI of under 1000 points reveals an unconcentrated market. In an unconcentrated market, a merger is unlikely to decrease competition and ordinarily needs no further analysis. A post-merger HHI of between 1000 and 1800 points reveals a moderately concentrated market. In a moderately concentrated market, a merger increasing the HHI by less than 100 points is unlikely to decrease competition and ordinarily needs no further analysis, but a merger increasing the HHI by 100 or more points may decrease competition and needs further analysis. A post-merger HHI of over 1800 points reveals a highly concentrated market. In a highly concentrated market, a merger increasing the HHI by less than 50 points is unlikely to decrease competi tion and ordinarily needs no further analysis, but a merger increasing the HHI by 50 to 100 points may decrease competition and needs further analysis. In a highly concentrated market, a merger increasing the HHI by more than 100 points will be presumed to decrease competition absent other proof or remedial action.(141)

The first step in finding the HHI for a relevant market is to list each competitor in that market. These are, at a minimum, the companies that actually provide the relevant product (for example, some form of mobile service and, perhaps, POTS) within the geographic market.(142) A company that provides the product in only a small part of the geographic market should not be excluded from the list solely for this reason. The company may have a small market share, but its existence in the relevant market is a fact and should be reflected in any measurement of its competitors. Careful consideration should also be given to including companies, such as nationwide paging carriers or satellite systems, that are in the product market but whose only coverage is nationwide. Depending on the facts, it may be appropriate to include a small share of their nationwide totals in a local or regional market.

To calculate the HHI, some measurement of market share must be used for all competitors. The best measurement is that which determines the future competitive significance of competitors in the relevant mar ket.(143) Possible measurements include: numbers of current customers; numbers of recently added customers(144) or some other measure of competition "at the margin"; gross revenues;(145) net revenues; minutes of usage; population within licensed areas (POPs);(146) and amount of spec trum, either allocated, licensed, or in use. The challenge in choosing a method of measurement is to find one that assesses future competitive significance, that is an "apples-to-apples" measurement for all companies in the relevant market, and for which numbers can be obtained without undue expense, time, or revelation of proprietary data.

Any measurement by financial data or customer numbers poses problems. First, the Commission has no established procedure for obtaining competitors' financial results and customer numbers. Doing so also is time- consuming and can be contentious.(147) Competitors that are not parties will undoubtedly be reluctant to disclose their trade secrets in a case in which they are bystanders. In addition, an "apples-to-apples" comparison of financial data would need to reconcile data for services that are typically charged on a usage-sensitive basis (*e.g.*, cellular), for services that are charged for on a per-month basis (*e.g.*, paging and simple dispatch), and for services that have only an initial payment and no recurring ones (*e.g.*, private and federal government systems, unlicensed PCS, and low-end systems). Likewise, any measurement by customer numbers would need to reflect the true size of single customers, such as major corporations, that subscribe to many units.(148) For the next few years any revenue- or customer-based measurement also would ignore PCS, which will have few or no customers but is a real factor in the marketplace. PCS will almost triple the spectrum available for common carrier services.

Allocated spectrum as a unit of measurement lists each block of spectrum available for licensure by the Commission as a competitor and reflects capacity, which is a good measurement of long-term ability to compete.(149) Allocated spectrum also has the advantage of being reason ably accessible and indisputable.(150) Finally, using allocated as opposed to licensed spectrum reflects uncommitted entrants and supply substitu tion.(151)

Use of spectrum as a measurement may require complex refinements. First, a measurement of "raw" spectrum gives equal weight to a chan nel(152) allocated to cellular service, which can carry one customer's conversation, and to a channel allocated to paging service, which can transmit momentary signals for thousands of customers.(153) This may overstate the competitive power of relatively inefficient technologies, such as cellular, and understate that of relatively efficient technologies, such as paging.(154) To remedy any such imbalances, spectrum could be translated into channels that are actually used or into some other measurement that reflects how different services and technologies use the same amount of spectrum. Another necessary refinement would reduce the allocations to nationwide services, such as satellite-based systems and nationwide paging, to reflect how much of their nationwide allocation is devoted to the particular geographic market that is involved in the merger.

a. An Example of the HHI in a Horizontal Mobile Services Merger

The following is an illustration of an HHI for the merger of two PCS carriers, one with a 30 MHz license and the other with a 10 MHz license.(155) In this illustration, the following assumptions are made:

(1) the judicial test of reasonable interchangeability rather than the Five Percent Question is the standard for defining the product market;

(2) the product market is two-way voice service, which consists of cellular, interconnected SMRs, and arbitrarily chosen small amounts of maritime, interconnected private radio systems, low- end services, federal government systems, and POTS;(156)

(3) broadband PCS is included in the product market;

(4) there are no submarkets;

(5) allocated spectrum is the measurement of competitive significance in the market, with no modifications to reflect efficient and inefficient uses or technologies;

(6) the cost of changing out-terminal equipment is not a significant barrier to interservice or intercarrier competition;

(7) each cellular carrier has acquired one of the 10 MHz broadband PCS licenses, but the third remains independent

and is the target of the merger in question;

(8) of all the SMRs in the geographic market, only two are interconnected, one large and one small;

(9) resellers have no competitive significance in the geographic market;

(10) air-ground, unlicensed PCS, and satellite-based services are niche competitors whose interchangeablility with services in the product market is insignificant;

(11) there is significant use of maritime service and pay phones, a form of POTS, because the geographic market includes a major harbor and rivers that are recreational areas; and

(12) the geographic market is a metropolitan area.

Table 1. Pre-Merger HHI

Competitor MHz Market Share % Square

Cellular Carrier A 35 18 324

Cellular Carrier B 35 18 324

Broadband PCS A 30 16 256

Broadband PCS B 30 16 256

Broadband PCS C 30 16 256

Broadband PCS D 10 5 25

Large Interconnected SMR 10 5 25

Small Interconnected SMR 3 2 4

Private Radio 3 2 4

Federal Government 2 1 1

Maritime 2 1 1

CB Radio 1 0 0

POTS 1 0 0

Pre-Merger Total 192 1001,476

Table 2. Post-Merger HHI

Competitor MHz Market Share % Square

Cellular Carrier A 35 18 324

Cellular Carrier B 35 18 324

Broadband PCS A 40 21 441

Broadband PCS B 30 16 256

Broadband PCS C 30 16 256

Broadband PCS D — — —

Large Interconnected SMR 10 5 25

Small Interconnected SMR 3 2 4

Private Radio 3 2 4

Federal Government 2 1 1

Maritime 2 1 1

CB Radio 1 0 0

POTS 1 0 0

Post-Merger Total 192 1001,661

Net Change: HHI increase of 185.

Applying the *Horizontal Guidelines*' standards for HHI numbers, the market is "moderately concentrated" before and after the merger. The merger increases the HHI by 185 points, which means that the merger "potentially raise[s] significant competitive concerns," and its competitive effects probably warrant further analysis.(157)

2. Further Analysis

The *Horizontal Guidelines* state that the HHI is "only the starting point" and that further analysis of the merger is always needed.(158) What the HHI does, as a practical matter, is to assign the burden of proof. If the HHI is favorable to a merger, its opponents bear a heavy burden of proof in showing that it will decrease competition. If the HHI numbers are unfavorable, the proponents of the merger bear a heavy burden of proof in showing that it will not decrease competition. If the HHI numbers are in the middle range, both sides continue the analysis. In any event, analysis of the factors described below may condemn a merger that passed the HHI and may save one that failed it.

In discharging their respective burdens over the years, proponents and opponents of mergers have constructed a "Rogues Gallery" of anticompet itive effects of horizontal mergers. What follows is a tour of the most repellent exhibits.

a. Dangers to Competition in Horizontal Mergers

1. Diminished Innovation

Every horizontal merger eliminates one company from the industry, resulting in one less source of innovation and experimentation. This argument is flawed because it is difficult to quantify. Counsel needs to make arguments about diminished innovation and experimentation as precise as possible.

2. Greater Ease of Coordinated Interaction

The fewer the competitors, especially powerful ones, remaining in a market after a merger, the easier it is for them to engage in "coordinated interaction," such as fixing prices, limiting output, allocating customers or markets,(159) or simply to fail to compete vigorously. Several elements of the mobile services industry, particularly its cellular component, make illicit coordinated interaction more likely than it would be in a typical industry. The same companies are often partners in one market and competitors in another.(160) This allows their partnership meetings in one market to become a forum for discussions about coordinated interaction in their other markets.

Also, most cellular carriers are affiliates of much larger companies whose core business is POTS. The latter companies, therefore, have both the incentive, and through their supply of local exchange interconnection facilities, the opportunity to stunt the growth of mobile services as competitors to POTS.(161) Third, the number of companies in the cellular industry has continually diminished as independent licensees have merged into large corporate structures that are dominated by providers of POTS.(162) Finally, broadband PCS licensees, with few exceptions, are the same companies that dominate the cellular industry.(163) In a business with a structure so conducive to coordinated interaction, collusion need not be express, as in a formal agreement to fix prices. An oligopolistic structure facilitates a laziness in competition that can produce the same results as express collusion (*e.g.*, high prices, low quality, and lack of innova tion).(164) A horizontal merger will negatively affect competition if it will increase any of these structural infirmities.

On the other hand, these risks may not be as great as they appear. In the thirteen years since the commercial cellular industry began, there is no known case of express coordinated interaction—a remarkable achievement for a business in which there are only two sellers and so many incentives. Mobile services are, and will increasingly be, characterized by growing demand, supply, and technical innovation,(165) making coordinated interac tion relatively difficult to affect. Broadband PCS, by injecting several new competitors into each area, will make coordinated interaction, even among old friends, significantly more complicated and more difficult. These factors will reduce the risk of mergers facilitating coordinated interaction.

3. Potential Competition

If the purpose of a merger is for the acquiring company to enter a new activity or territory by purchasing an existing company, the question arises whether the acquiring company could do so alone, without eliminating an existing competitor. The question is rephrased slightly when two or more companies jointly attempt to enter a business or territory that is new to both of them. In that situation, the issue is whether each could enter the new business or territory alone, thus, resulting in two new competitors instead of just one.(166)

Affirmatively improving competition in a product market is, perhaps, beyond the scope of merger law, whose principal goal is to prevent deteriorations in competition.(167) However, a merger such as described in the preceding paragraph will damage competition in the premerger market in two circumstances. The first occurs when the companies in the premerger market perceive that one or both of the merging companies would enter the market *de novo*. This actuates the companies in that market to keep prices lower, quality higher, and innovation faster than they otherwise would do. The second arises if one or both of the merging companies was actually planning to enter the market *de novo* and then decided instead to take the less adventurous step of entry by merger. In either situation, the merger will reduce competition.

Both these ideas are captured by the doctrine of "potential competi tion," which case law has divided into two types. The first, "perceived potential competition," focuses on the market about to be entered and the companies already in it, and holds that:

competition might be diminished if a company which industry participants had thought might actually enter the market on its own instead simply acquired a company already in that market. . . . [The doctrine recognizes] the probability that the acquiring firm prompted premerger procompetitive effects within the target market by being perceived by the existing firms in that market as likely to enter *de novo*. The elimination of such present procompetitive effects may render a merger unlawful under § 7 [of the Clayton Act.] Perceived potential competition focuses on the premerger effect on prices of the perception that if profits rise, a new company will enter the market and drive down both prices and profits.(168)

The second, "actual potential competition," focuses on the acquiring company and has the following elements:

1. the relevant market is oligopolistic; 2. absent the acquisition, the acquiring firm would have entered the market in

the near future, either *de novo* or through acquisition of a little company; and 3. such entry by the acquiring firm carried a substantial likelihood of ultimately producing deconcentration of the market or other significant procompetitive effects.(169)

Both scenarios require the merger's opponent do more than show that *de novo* entry is possible. To establish perceived potential competition, it must be shown that incumbent competitors actually fear entry by the acquiring company enough to lower price, and raise quality, and that after the merger there will be no other newcomers to keep the incumbent providers competing vigorously. Actual potential competition requires a showing that, but for the merger, the acquiring company would have entered the market. Such a showing is difficult to make without access to the acquiring company's files and the ability to ascertain its executives' inner thoughts.

In a business where *de novo* entry requires a radio license, potential competition arguments can be made only if allocated and unlicensed spectrum for new entrant exists. Only then is entry possible by means other than a merger with an incumbent provider. This has not occurred frequently because mobile services have suffered from a chronic shortage of spectrum.(170) However, if the Commission creates a surplus of spec trum,(171) potential competition may become a valid objection to mobile services mergers.

4. Prior "Bad Acts" by a Party to the Merger

A party to a merger, especially the one that will control the post- merger company, that has a history of anticompetitive conduct (*e.g.*, adjudicated violations of the antitrust laws or anticompetitive torts), raises the possibility of reduced competition after the merger.(172) Assuming that it can be proven that a prior anticompetitive act occurred,(173) its materiali ty to the merger should be evaluated by asking several questions. Was the act committed by a merging company, or was the perpetrator an affiliate over which the merging company had no control and/or from which it derived no benefit? Is the act a common industry practice that is the subject of a current rule making or complaint proceeding where its effects can be better addressed?(174) If the bad act is objectionable under the foregoing criteria, will the merger increase either the likelihood of its repetition or the severity of its negative effects on competition? This last question is most important because it focuses on the central competitive issue in mergers: the potential for the merger to cause a reduction in competition as opposed to the continuation of preexisting anticompetitive conditions.(175)

b. Benefits to Competition in Horizontal Mergers

While horizontal mergers may dampen competition, case law and economic theory have fashioned arguments that can be made in their favor. Some of these arguments concede that competition may decrease, but shift the blame from the merging companies. Alternatively, these arguments show either that factors outside the merger will remedy any negative effect on competition or that the merger will ultimately increase competition. Other arguments deny that the merger will weaken competition.

1. Regulation

The Commission is "mindful of the need . . . to take into account possible distortions in the competitive marketplace produced by current rules.(176) For example, when the Commission allocated spectrum for two competing cellular systems in each area, it effectively forbade another entrant. If problems with competition that are expected in the post-merger market can be attributed to the Commission or a state regulatory body, then the merger's anticompetitive effects may be viewed in a less sinister light. In such a case, the merging companies cannot be held responsible for causing the problem.(177) Or, the merging companies can hope that regula tion will be altered to remove the anticompetitive effect on the market.(178)

2. Efficiencies

Horizontal mergers may create financial savings,(179) economies of scale,(180) economies of scope,(181) or other efficiencies.(182) For example, a merger might make possible a new packaged offering such as telephone, paging, and dispatch services in one piece of terminal equipment.(183) A merger may create efficiencies of a more cultural nature, such as the combination of a cash-rich, stodgy company with a cash-poor, fleet-footed one.(184) If two such companies can combine their respective strengths, their merger will result in a net improvement in the competitiveness of the market.

Several questions are relevant concerning each allegedly procompet itive effect. First, how great is it? Increases in efficiency can range from the breathtaking to the trivial. The parties to the merger should attempt to document the merger's potential effects: including how many jobs and/or dollars will be saved; how much faster calls will be carried; or how many new offerings will be and made how soon. If they do, the question arises whether the demonstrated quantities are impressive compared to the merger's size.(185)

Second, will the efficiencies enhance competitiveness? For example, it is reasonable to expect that faster call processing or new offerings will improve the merged company's service and will cause remaining competi tors to improve their own services—clearly a procompetitive result.(186) On the other hand, if financial savings, such as from merging two companies' customer service departments, are all that is expected, the question arises whether the benefits will accrue solely to the shareholders or will be passed on to consumers, reinvested in improved service, or otherwise devoted to improving competition.(187)

Third and most important, is the merger necessary for the efficiency to be realized? Could such efficiency be achieved without a merger?(188) For example, after a cellular merger, the people who were customers of each merging company may be spared surcharges for roaming in areas that used to be the other merging company's territory.(189) Is such a change, however, an efficiency made possible by the merger, or simply a rate reduction that could be achieved by the companies agreeing to waive roaming charges for each other's customers?(190) Alternatively, the merged company may plan to charge the same price in all its geographic markets after the merger. Such a change would aid competition by reducing possible confusion for customers and, most important, would be almost impossible to arrange between two independent companies.(191)

3. Ease of Entry

It is possible for a company to have a high market share, even to be a monopoly in the sense of being the only seller, and still be efficient. The company may know that inefficiency or abuse of its customers will cause new competitors to spring up, enter the market, and deny it the fruits of any attempted exercise of market power.(192) Such a market has "ease of entry.(193) This is a long-term view of "supply side substitution" or uncommitted entry discussed in Part (I)(A)(4)(b)(1).(194) Thus, a proponent of a merger sustains it by showing that the post-merger market would be one in which any conduct aimed at stifling competition would be thwarted by new competitors entering the market.

In a mobile services merger, the proponent of the "ease of entry" defense might be required to show affirmatively that the resources needed to enter the market are readily available and could be deployed with modest effort in a reasonably short time. The first resource might be spectrum—the raw material needed for any mobile service. The proponent of "ease of entry" would have to show that enough new spectrum exists to allow entry into the relevant market. The proponent also could demonstrate that the legal and regulatory barriers to entry would be negligible or, if significant, could be surmounted with reasonable effort.(195) Another required showing might be that the financial capital needed to enter a business is available in the financial markets. This would be especially important to show ease of entry into mobile telephone service—a business in which millions must be invested before the first dollar of revenue is earned.(196) A proponent could also show that the necessary "human capital"—persons with the necessary technical, financial, and marketing skills—is available in the labor market.

Other relevant contentions include that customers of existing providers would not be "locked in" by long-term contracts or by the prohibitively high cost of switching terminals. An additional argument is that a new entrant could survive entirely on new customers. Finally, the proponent of "ease of entry" might illustrate that all these barriers could be surmounted in time to dissuade the merged company from attempting to abuse its market power (*e.g.*, by raising prices or failing to lower them).(197) The *Horizontal Guidelines*, for example, generally consider entry to be timely if no more than two years elapse from "initial planning to significant market impact.(198) The same period has support in case law.(199)

Establishing availability of spectrum may present differing degrees of difficulty for various mobile services. For example, there appears to be an enormous amount of spectrum available for paging service. The FCC has allocated approximately 4.5 MHz to it.(200) The FCC also has allocated large spectrum amounts for cellular and SMR services (50 and 21 MHz, respectively), broadband and narrowband PCS (120 and 3 MHz respective ly), and FM and television subcarriers all of which also may be used for paging service.(201)

Dispatch service may be more difficult to enter. It may be that the spectrum allocated to PCS is, for technical reasons, useful for dispatch service only with a large number of towers and intertower links. Quite probably, the expense of such a network would put its price too far above conventional dispatch and interconnected SMR services to be competitive. As to cellular companies starting to provide dispatch, there appears to be no technical problem with using cellular spectrum for dispatch service. However, there may be an economic problem. If a cellular carrier earns enormous profits by providing high-priced cellular service on all its allocated spectrum, there may be no economic incentive to divert some of that spectrum to relatively low-priced and, presumably, low-profit dispatch service.(202) Assuming the validity of this pessimistic view, any new entry into dispatch may have to come from new satellite systems(203) and from the spectrum transferred from federal government to private use.(204) If all these allocations become available for mobile services, there might be a surplus of spectrum and, as far as access to it is concerned, great "ease of entry" into any and all segments of the industry.(205)

4. Failing or Floundering Company

Sometimes a company's market share overstates its actual power.(206) This can occur when high numbers represent past sales or a hammerlock on unprofitable customers or areas,(207) or when a company with healthy revenues becomes marginal through mismanagement. If the acquired company is floundering,(208) and if ceasing operations would cause its corporate assets, including spectrum, to cease to be used to provide the relevant product, then a merger will not hinder competition as much as originally thought. In other words, the failing company's absorption into another through a merger is the only way for it to continue in the market. Such a situation seems unlikely at present, because the mobile services industry has been hugely successful in the past decade.(209) However, if a glut of spectrum is created, this industry may start showing a failure rate typical of the business world as a whole.

c. A Note on Horizontal Extension Mergers

1. Product Extension Mergers

If a merger is between two mobile service companies that are in different product markets, such as a merger of a cellular service company and a paging service company in a case where those services have been found to be in different product markets,(210) then there will be no increase in concentration in any relevant market, and no HHIs need be calculated. Such mergers are called product extension mergers and should be analyzed under all the factors described. The factors most likely to be important are the anticompetitive factor of potential competition(211) and the procompet itive factor of efficiency.

2. Geographic Extension Mergers

If a merger is between two companies in the same product market but in different geographic markets, such as a merger between a cellular service company in city A and a cellular service company in city B, then there is no increase in concentration in any relevant market, and no HHIs need be calculated. Such mergers are called geographic extension mergers and, like product extension mergers, should be analyzed under all described factors, especially potential competition and efficiency.(212) Because of the efficiencies that can be affected by such mergers and the alleged value of a regional or national brand name, geographic extension mergers are common in those mobile services that were initially licensed for relatively atomized territories.(213)

B. Vertical Mergers

So far, this Article has concentrated on horizontal mergers. A vertical merger may have any of the dangers and benefits to competition concerning horizontal mergers, except for diminished innovation and greater ease of coordinated interaction, to the extent they concern those effects in the same product market.(214) However, there are a few special considerations applicable to vertical mergers, which require separate examination.(215)

Vertical mergers, as a whole, are now considered beneficial for competition and consumers. Negotiations between buyer and seller that were time-consuming in the past can now be completed quickly by the president of the merged company. In the same way, retailers' knowledge about customers' needs can be shared freely with manufacturing personnel, leading to shorter times between the planning and offering of new products and services.(216) Viewed in this light, vertical mergers are considered benign unless they are affirmatively shown to be without the foregoing benefits or they have one or more of the flaws peculiar to either horizontal or vertical mergers. Flaws specific to vertical mergers are described below.

A vertical merger's first potential anticompetitive effect is when one of the merging companies has market power in a relevant market and, if the merger occurs, will be able to use that power to gain market power or at least an unreasonable advantage in a market where the other merging company is already present.(217) This can happen when the upstream merging company sells something ("inputs") to the competitors of the downstream merging company. The upstream company can stop supplying them, raise their price, or lower their quality after the merger, and competitors may be unable to procure comparable inputs elsewhere.(218) For example, the AT&T-McCaw merger combined McCaw, a cellular service company, with AT&T, a company that sold networks to McCaw's competitors and, in so doing, came into possession of many of McCaw's competitors' trade secrets. McCaw's competitors feared that those secrets would be leaked to McCaw. Similarly, if the upstream merging company sells inputs to the competitors of the downstream merging company, it may come into possession of the competitors' proprietary information and leak that information to its downstream affiliate.(219)

The second potential anticompetitive effect is that it will require other companies in the two relevant markets to affiliate with each other and/or will require that future entrants into one market also simultaneously enter the other market. This may reduce competition in sales to downstream companies(220) by turning each downstream company into a captive customer of its upstream affiliate. A vertical merger also may increase the cost of entry(221) and lead to rigidity in the two relevant markets. A third potential anticompetitive effect involves a maverick company that will be disciplined by the other merging company, thus reducing competition and increasing the risk of collusion in the former company's market.(222) The fourth effect is that each merging company, having easier access to the information of the other one, will be in a better position than before to act as the coordinator of price-fixing or other collusion among the other companies in either market.(223) Finally, if the upstream company is unregulated, and the downstream company is a monopoly that is regulated ineffectively, the upstream company may sell its products to its downstream affiliate at inflated prices, which will then be passed on to the monopolist's captive customers.(224)

The seriousness of each of these risks depends on the facts of each relevant market, which need careful examination. If both the upstream and the downstream markets are reasonably competitive, it is unlikely that any of these ill effects will occur. Usually, the anticompetitive effect in a vertical merger involves the imperfections in one of the relevant markets flowing through the merger into the other. Finally, in evaluating the seriousness of any risk of anticompetitive effects, it is necessary to remember that the vertical merger will decrease competition only if it results in injury to consumers, such as higher prices or lower quality goods. As with horizontal mergers, the focus is on harm to competition, not to competitors.(225)

C. Relief

At the end of the foregoing analysis the Commission will find the merger, on balance, to have a positive, negative, or no net effect on competition. If the Commission finds either a positive or negligible effect, then the associated transfer of radio licenses satisfies the competitive component of the Commission's "public interest" standard, and, absent other effects that are contrary to the public interest, the transfer should be approved.(226) If, however, the merger will decrease competition, then the Commission has at least two options. One is to analyze the other effects of the merger under the public interest standard, and search for some good effect that will outweigh the anticompetitive ones. Another option is remedial action by the Commission to eliminate the merger's anticompet itive effects, or at least to reduce them enough to make the merger procompetitive or neutral on the whole. The most common form of such remedial action by the Commission is to require changes in the merger as a condition of approval.(227)

Conditions can take many forms. Conditions may require divestitures that will lower the market share of the merged company below HHI ceilings or spectrum caps.(228) Conditions may also be structural, such as requirements that certain activities be conducted through separate subsidiaries.(229) Conditions can also be behavioral, such as prohibiting an upstream company from discriminating in favor of its downstream affiliate,(230) or requiringing disclosure of information concerning any misconduct.(231)

Concerning each possible condition, several questions arise in the interests of competition and efficient government regulation of business. First, will the condition prevent all of the anticompetitive effects, or only some of them? Second, will the condition reduce an equal or larger amount of the procompetitive or other positive effects of the merger? Third, will the condition be costly or complicated to enforce, or will it slow innovation in a relevant market so much so that, on the whole, it will create costs, disputes, and other problems that are as great as or larger than the ones it solves? Only conditions that survive scrutiny under these standards will result in procompetitive effects. Conditions that do not survive this scrutiny should not be imposed, and the merger will remain one that, on the whole, is anticompetitive.

Conclusion

If and when there is a surplus of frequencies for mobile services, total flexibility of use of spectrum, and costless interchangeability of terminal equipment, then the risks to competition due to mergers of mobile services companies will be considered negligible. In the meantime, there may be risks which require vigilance. Indeed, the transition from oligopoly to competition may require a special vigilance. That is the time when incumbent firms know that any ability they have to discourage and hobble their new competitors is about to slip through their fingers forever. Beyond this time of danger is a brighter prospect of a workably competitive market for mobile services. Conceivably, such competition will drive down prices enough to create real rivalry for POTS. Competitive analysis of mergers in the mobile services industry, if rigorous, will preserve the promise of the Commission's recent flood of spectrum onto the market and will turn a comfortable oligopoly into a truly competitive business with consequent benefits for consumers and this nation's economic and social life.

(110)110.United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 359 (1963), *followed in*

Thompson v. Metropolitan Multi-List, Inc., 934 F.2d 1566, 1573 (11th Cir. 1991); Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 327 (1961); *In re* Common Carrier Services, *Fourth Report and Order,* 95 F.C.C.2d 554, para. 25 (1983), *vacated on other grounds*, AT&T v. FCC, 978 F.2d 727 (D.C. Cir. 1992).

(111)111.*Philadelpia Nat'l Bank*, 374 U.S. 321 (1963).

(112)112.*Id.* at 357-59; *accord* Brown Shoe Co. v. United States, 370 U.S. 294, 336-37 (1962).

With respect to the manufacture of shoes, the Supreme Court found in *Brown Shoe* that the relevant geographic market was the entire nation: "The relationships of product value, bulk, weight and consumer demand enable manufacturers to distribute their shoes on a nationwide basis, as [the parties to the merger], in fact, do. The anti-competitive effects of the merger are to be measured within this range of distribution." *Id.* at 328. However, with respect to the retail sale of shoes, the Supreme Court defined smaller relevant geographic markets, as:

those cities with a population exceeding 10,000 and their environs in which both [parties to the merger] retailed shoes through their own outlets. Such markets are large enough to include the downtown shops and suburban shopping centers in areas contiguous to the city, which are the important competitive factors, and yet are small enough to exclude stores beyond the immediate environs of the city, which are of little competitive significance.

Id. at 339.

(113)" 113.*Philadelphia Nat'l Bank*, 374 U.S. at 359 (emphasis and citation omitted).

(114)" 114.Horizontal Guidelines, *supra* note 18, § 1.21, at 20,573. As with product markets, the

Horizontal Guidelines define a relevant geographic market differently if the producer could profitably practice price discrimination within it. If sellers could profitably discriminate against buyers in a particular area within the geographic market, the *Horizontal Guidelines* may treat that area as a separate geographic market. *Id*. § 1.22, at 20,573-3.

(115). Originally, all cellular customers received access to their entire "home" system as

part of their service. Some carriers offered broader coverage as an option, such as McCaw's "City of Florida," which offered calling at discounted rates between any of McCaw's cellular systems in Florida. *CMRS First Annual Report*, 10 FCC Rcd. para. 17 n.26; *Craig O. McCaw*, *Memorandum Opinion and Order*, 9 FCC Rcd. 5836, para. 23 n.55 (1994); R. Harris & D. Rubinfeld, University of California, Berkeley and the Law & Economics Consulting Group, Inc., An Economic Analysis of Tomcom- Primeco: The AirTouch-US West/Bell Atlantic-NYNEX Joint Venture in Wireless Communications 4 n.1 (1994). Recently, however, some cellular carriers have

begun to offer the option of service within a relatively small part of a system's total coverage for a relatively low rate. *See* sources cited *supra* note 98.

(116). The Commission is considering changing its SMR licensing rules to approximate

the cellular service's area-by-area licensing, in order to facilitate the consolidation of small SMRs into wide-area ones. *In re* Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Notice of Proposed Rulemaking*, 8 FCC Rcd. 3950 (1993).

(117). *CMRS Third Report and Order*, 9 FCC Rcd. para. 54.

(118). *CMRS First Annual Report*, 10 FCC Rcd. paras. 46, 49-50.

(119). *In re* Amendment of the Commission's Rules Concerning Maritime Communica

tions, *Notice of Proposed Rulemaking and Notice of Inquiry*, 7 FCC Rcd. 7863, para. 34

(1992).

(120). *Craig O. McCaw*, 9 FCC Rcd. para. 11 (finding the geographic markets to be

"each Metropolitan Statistical Area (`MSA') or Rural Statistical Area (`RSA') in which McCaw offers such service"), *aff'd*, SBC Comm., Inc. v. FCC, 56 F.3d 1484, 1485 (D.C. Cir. 1995) (finding "the market is local because `the purchaser cannot, as a practical matter, turn to suppliers outside their own areas'.") (quoting Standard Oil Co. v. United States, 337 U.S. 293, 299 n.5 (1949)); United States v. AT&T Corp., 59 Fed. Reg. 44,167 (FCC 1994) (codified at 47 C.F.R. § 73 (1994)) (finding the relevant geographic markets to be "those service areas in which the FCC has licensed cellular carriers to provide cellular service"). In most cases, McCaw had built facilities to service its entire FCC-licensed area, so that there was no real difference between its actual coverage and its FCC-licensed coverage. *See supra* note 69.

(121)" . *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, para. 18 (1995), *application for*

review pending.

(122)" . United States v. Motorola, Inc., 59 Fed. Reg. 55,709 (Dep't of Justice-Antitrust

Div. 1994).

(123). *Nextel Communications, Inc.*, *Order*, 10 FCC Rcd. 3361 (1995), *reconsideration*

denied by Order, 10 FCC Rcd. 10450 (1995), *Motorola, Inc.*, *Order*, 10 FCC Rcd. 7783, para. 29 (1995), *petition for reconsideration pending*.

(124). It appears that in the cases discussed above there was no significant difference

between the served area and the licensed area.

(125). United States v. Grinnell Corp., 384 U.S. 563, 575-76 (1966).

(126). Each Bell cellular company covers most or all major metropolitan areas in the

"home" region of its affiliated telephone companies. SMR mergers began a few years ago, grouping previously balkanized systems into regional clusters that Nextel, in turn, is now merging into national coverage. The broadband PCS auctions have so far resulted in two Bell companies—BellSouth and Southwestern Bell—filling holes in their regional cellular coverage. Three winners of the broadband PCS auctions will approach national coverage when their cellular and broadband PCS coverages are combined. They are AT&T, Wirelessco (consisting of Sprint and three cable television operators), and PCS Primeco (consisting of Bell Atlantic, NYNEX, AirTouch, and US West).

(127)" . *See, e.g.*, *Craig O. McCaw*, *Memorandum Opinion and Order*, 9 FCC Rcd. 5836,

para. 33 (1994); Harris & Rubinfeld, *supra* note 115, at 17 & n.12.

(128). Roaming is what happens "when the subscriber of one CMRS provider enters the

service area of another with whom the subscriber has no pre-existing service or financial relationship, and attempts either to continue an in-progress call, to receive an in-coming call or to place an out-going call." *In re* Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, *Second Notice of Proposed Rulemaking*, 10 FCC Rcd. 10,666, para. 45 (1995).

(129). *In re* Land Mobile Service Use of 806-960 MHz Band, *Second Report and Order*,

46 F.C.C.2d 752, para. 21 (1974) (advocating "[nationwide] compatibility. All systems shall be designed for nationwide compatibility for roamer operation." *Id.* app. C, § IV(f).).

(130). *See BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, paras. 19-21 (1995).

(131). For example, the AT&T-McCaw merger was horizontal in that both companies

provided interstate interexchange service; vertical in the sense that AT&T manufactured

cellular networks for sale to McCaw; and conglomerate in that McCaw owned some interests in broadcasting, which was a business with no close relationship to AT&T's lines of business. *See Craig O. McCaw*, *Memorandum Opinion and Order*, 9 FCC Rcd. 5836 (1994).

(132)" . Brown Shoe Co., Inc. v. United States, 370 U.S. 294, 334 (1962).

(133)" . United States v. International Tel. & Tel. Corp., 306 F. Supp. 766, 774 (D. Conn.

1969). In such vertical premerger relationships, the selling company is referred to as the "upstream" company or the "input supplier," and the buying company is referred to as the "downstream" company or the "output supplier."

(134). *Id.*

(135). Conglomerate mergers are thought to pose no danger to competition because the merging companies are not competitors, so their merger will not aggravate any market power that either of them has, absent exceptional circumstances. The most common exceptional circumstance is that industry conditions will change, placing the companies' products in competition with each other or making one merging company's product an input of the other's. Absent such a prospect, even if the merged company has market power over one product, the lack of relationship between the two products will give the merged company no leverage to make its customers buy its other product.

(136). No relevant market can be ignored. For a case where the Commission was overly

concerned with one product market (cellular) and ignored another (paging), leading to its reversal by the Court of Appeals, see Celcom Comm. Corp. v. FCC, 789 F.2d 67, 71 (D.C. Cir. 1986), *aff'd*, 839 F.2d 824 (D.C. Cir. 1988).

(137). If the parties to the merger provide the same product in different geographic

markets, this analytical step may be skipped. The merger should be analyzed as a geographic extension merger. *See infra* at p. 301.

(138). The first part is unnecessary in two types of horizontal mergers, which are called

product extension mergers and geographic extension mergers. *See infra* at p. 300-301.

(139). *Philadelphia Nat'l Bank*, 374 U.S. 321 (1963).

(140)" . *Id.* at 363. *See also* United States v. Grinnell Corp., 384 U.S. 563, 571 (1965)

(explaining that ordinarily market or monopoly power may be inferred from predominant share of the market).

(141). Use of the HHI to measure market power has received some judicial sanction. FTC

v. University Health, Inc., 938 F.2d 1206, 1211 n.12 (11th Cir. 1991); FTC v. PPG Indus., Inc., 798 F.2d 1500, 1503 (D.C. Cir. 1986); FTC v. Owens-Illinois, Inc., 681 F. Supp. 27, 34 (D.D.C. 1988). *But see* Zenith Elec. Corp. v. United States, 988 F.2d 1573 (Fed. Cir. 1993) (Certain HHI calculations are "of no evidentiary value" and "totally lacking in evidentiary weight.").

The Commission has adopted several similar objective rules, called "spectrum caps," which limit how many MHz of spectrum any one company may control in the same area. These are: (1) 25 MHz of cellular spectrum (47 C.F.R. § 22.902(b)(5) (1995)); (2) for cellular carriers, 10 MHz of broadband PCS spectrum (47 C.F.R. § 24.204(a) (1995)); (3) 45 MHz of cellular, SMR, and broadband PCS spectrum (47 C.F.R. § 20.6(a) (1995)); and (4) three licenses for narrowband PCS spectrum (*In re* Amendment to the Comm'n's Rules to Establish New Narrowband Personal Comm. Services, *First Report and Order*, 8 FCC Rcd. 7162, paras. 32-34 (1994)). These spectrum caps appear to be ceilings, not safe harbors, because the Wireless Telecommunications Bureau's and Commission's decisions have given extensive analysis to the competitive effects of mergers that do not exceed the spectrum caps. *See* sources cited *supra* note 3. The second spectrum cap stated above is in litigation.

(142). In a state where resellers are a significant presence, they may deserve the same

status as the "facilities-based" system operators. *See supra* note 30. "Uncommitted entrants," discussed above, also might be listed.

(143). Horizontal Guidelines, *supra* note 18, § 1.41, at 20,573-74.

(144). Measuring by units of service sold, instead of by customers, can avoid the mistake

of equating a customer with many units (*e.g.*, a large corporation) and an individual customer with only one.

(145). CMRS prices are not regulated, but if revenues are used as the measurement, the

revenues of any service whose rates are regulated (*e.g.*, POTS) can be altered to reflect any distorted effect. *See supra* note 23.

(146). *See, e.g.*, *In re* the Comm'n's Rules to Establish Personal Communications

Services, *Notice of Proposed Rule Making Tentative Decision,* 7 FCC Rcd. 5676, para. 57 n.41 (1992). The defect of POPs is that they measure potential customers or competitive power, not actual customers or competitive power. Thus, POPs equate entrenched providers and infant ones, although the former may have more competitive power than the latter.

(147). *See Craig O. McCaw, Memorandum Opinion and Order*, 9 FCC Rcd. 5836 (1994).

Trade associations and securities analyses often publish types of financial results and customer numbers. They do not do so systematically, however, and it would be an extraordinary coincidence if they did so in conformity with the product and geographic markets for a particular merger.

(148). Customer numbers would also show cellular and paging services, which have

roughly the same number of customers, as equally powerful in the market. *See supra* pp. 256, 258. Few industry observers would deny, however, that cellular service, with its far greater capabilities and higher prices, has more competitive significance than paging.

(149). Courts have held different kinds of capacity to be valid measurements of market

shares and market power. *See, e.g.*, United States v. General Dynamics Corp., 415 U.S. 486, 501 (1973) (Uncommitted capacity was measure of market power in business (coal mining) where most sales were made pursuant to long-term contracts that had absorbed most of the total capacity of the business.); Ball Memorial Hosp., Inc. v. Mutual Hosp. Ins., Inc., 784 F.2d 1325, 1335 (7th Cir. 1986) (Market power may be measured by "ownership of the productive assets in the business."). *See also* 1 ABA, Antitrust Law Develop ments 300 & nn.139-41 (3rd ed. 1992) (citing cases where capacity is used as the measure of market power). The Commission has recognized the importance of capacity in measuring market power. In adopting its CMRS "spectrum caps" that limit the amount of spectrum that any CMRS licensee may control, the Commission noted that "[t]he purpose of the cap is to prevent licensees from artificially withholding capacity from the market. The aggregation of spectrum measures the ability to withhold capacity from the market." *CMRS Third Report and Order,* 9 FCC Rcd. para. 258.

(150). The *First Annual Report*, describing various mobile radio services, states the

spectrum allocations available for most of those services. A difficulty in using spectrum as the measurement in HHI calculations arises when listing competitors. *See supra* note 141. While it is easily determinable, for example, that a 50 MHz cellular allocation of spectrum should be divided between two competitors, each with 25 MHz, it is not clear whether or how to make such a division for services such as unlicensed PCS and low-end services.

(151). The *Horizontal Guidelines* include uncommitted entrants as present competitors but

do not specify how their market shares are to be measured. Horizontal Guidelines, *supra* note 18, § 1.32, at 20,573-3. The *Horizontal Guidelines* do state, however, that one way to measure market share is "capacity currently devoted to the relevant market together with that which likely would be devoted to the relevant market in response to a `small but significant and nontransitory' price increase." *Id.* § 1.41, at 20,573-4.

(152). A channel is a man-defined part of spectrum that is used for carrying a communica

tion.

(153). Fifty cellular MHz and 4.5 paging MHz each carry approximately the same number

of customers. *CMRS First Annual Report*, 10 FCC Rcd. paras. 13, 29.

(154). In the same vein, it is expected that broadband PCS systems will carry many more

calls per MHz than cellular systems. *See, e.g.*, Stanley M. Besen & William B. Burnett, Charles River Assocs., An Antitrust Analysis of the Market for Mobile Telecommunications Services 35-40 (1993). *See also* Dr. George A. Keyworth et al., Progress & Freedom Foundation, The Telecom Revolu tion—An American Opportunity 12-13 (1995); CS First Boston, *supra* note 95, at 19, 32-33.

(155). Such a merger is permitted by the Commission's spectrum caps. *See supra* note

141.

(156). There are methods other than the arbitrary assignment of market shares to show the

competitive significance of entities whose inclusion in the product market is questionable when no statistical data are available. One method is to exclude all data about them from HHI calculations, but to set higher HHI thresholds than the *Horizontal Guidelines*. *See, e.g.*, Banco Popular de Puerto Rico, 79 Fed. Res. Bull. 979, 980 n.7 (1993). A second method is to include the questionable entities in the HHI calculations, but to give their data

less weight than is given to the data of the entities that are unquestionably in the product market. *See, e.g.*, Iowa Nat'l Bankshares Corp., 80 Fed. Res. Bull. 342, 344 (1994). A third method is to calculate HHI without such entities and, if the HHI indicates an unduly concentrated market, to consider such entities as mitigating factors without a specific numerical value. *See, e.g.*, Keycorp, 81 Fed. Res. Bull. 286, 288 (1995).

(157). If both the pre- and post-merger HHIs had been under 1000, or if the net increase

in the HHI had been less than 100, under the *Horizontal Guidelines* the merger would be unlikely to have anticompetitive effects and ordinarily would require no further analysis.

Horizontal Guidelines, *supra* note 18, § 1.51(a)-(b), at 20,573-5 to -6. If, however, the post-merger HHI had been over 1800, then the merger—the HHI increased more than 50— would be presumed to have anticompetitive effects. *Id*. § 1.51(c), at 30,573-6.

(158). Horizontal Guidelines, *supra* note 18, § 2.0, at 20,573-6. Indeed, some scholarly

analysts of horizontal mergers criticize all the matters discussed so far in this Arti cle—product markets, geographic markets, and objective measurements like HHI—as a "paint by the numbers" approach that gives a "false air of precision" to merger analysis. *See* Hruska, *supra* note 21, at 313. These analysts would begin their analysis of horizontal mergers with the factors discussed in this subsection.

(159). *See, e.g.*, U.S. Dep't of Justice, An Antitrust Primer for Federal

Prosecutors 11-12 (1994); Horizontal Guidelines, *supra* note 18, §§ 2.0-2.2, at 20,573-6 to -8. "Coordinated interaction" can occur simply by a significant reduction in the number of companies that interact. Mergers may also allow competitors to lessen competition through unilateral actions, especially in the case of differentiated services and products or

markets with limited capacities. *Id*. §§ 2.2-2.22, at 20,573-8 to -9.

(160). *See, e.g.*, *In re* Applications of MMM Holdings, Inc., *Memorandum Opinion and*

Order, 4 FCC Rcd. 8243, paras. 27-30 (1989). For example, as of late 1994, McCaw and BellSouth were partners in Los Angeles and Houston and competitors in Miami and Orlando; BellSouth and US Cellular were partners in

Nashville and Baton Rouge and competitors in Los Angeles and Bakersfield; and BellSouth and Southwestern Bell were partners in Gary and competitors in Houston.

(161). The Commission found this danger minimal when it created cellular service because

of the high price of cellular service and the low capacity of cellular systems compared to POTS. *In re* Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems, *Report and Order*, 86 F.C.C.2d 469, para. 32 (1981). However, new technology may make wireless services a serious competitor to POTS. *See CMRS First Annual Report*, 10 FCC Rcd. para. 75 n.155. Such a development would create a risk that POTS providers would stunt the growth of wireless as a competitor indefinitely, or at least until their wireline systems are fully depreciated.

(162). One reason the Commission approved the AT&T-McCaw merger was that McCaw

was the last large cellular service provider that had not been acquired by a company whose primary interest was in POTS. *Craig O. McCaw*, *Memorandum Opinion and Order*, 9 FCC Rcd. 5836, para. 58 (1994).

(163). The only major broadband PCS licensees that do not also have a major presence in

the cellular and POTS businesses are AT&T and Wirelessco, a joint venture of three cable television companies and the interexchange carrier Sprint.

(164). *See* United States v. United Shoe Machinery Corp., 110 F. Supp. 295, 347 (D.

Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954) ("Some truth lurks in the cynical remark that not high profits but a quiet life is the chief reward of monopoly power.").

(165). *CMRS Third Report and Order,* 9 FCC Rcd. paras. 53-56.

(166). *See* United States v. FCC, 652 F.2d 72, 100-02 (D.C. Cir. 1980); *In re* Application

of Alascom, Inc., AT&T Corp. and Pacific Telecom, Inc. for Transfer of Control of Alascom, Inc. from Pacific Telecom, Inc. to AT&T Corp., *Order and Authorization*, in File No. W-P-C 7037 et al., FCC 95-334 (Aug. 2, 1995) [hereinafter *AT&T-Alascom*].

(167). § 7 of the Clayton Act, for example, forbids only those mergers that reduce

competition or tend to create monopoly. *See supra* note 6. It does not authorize the government to order improvements in the premerger status quo.

(168). Alberta Gas Chemicals, Ltd. v. E.I. du Pont de Nemours & Co., 826 F.2d 1235,

1253-54 (3rd Cir. 1987) (Becker, J., dissenting) (citations omitted) (summarizing United States v. Falstaff Brewing Corp., 410 U.S. 526, 531-37 (1973) and United States v. Marine Bancorporation, Inc., 418 U.S. 602, 625 (1974)). *See also* FTC v. Procter & Gamble Co., 386 U.S. 568 (1967).

(169). *Alberta Gas Chemicals*, 826 F.2d at 1254-55 (Becker, J., dissenting) (citations

omitted) (summarizing *Marine Bancorporation*, 418 U.S. at 630 and Tenneco, Inc. v. FTC, 689 F.2d 346, 352 (2d Cir. 1982)). *See also Procter & Gamble*, 386 U.S. 568 (1967).

(170). The historic excess of demand for spectrum may not connote a shortage as much

as it reflects the fact that until recently the Commission gave spectrum away for free. When something is free, the demand for it will usually exceed the supply.

(171). In addition to PCS spectrum, mobile services might be provided on 25 MHz of

spectrum that was recently reallocated from federal government use and on spectrum now used for fixed "wireless cable" service, called Local Multipoint Distribution Service. *See CMRS First Annual Report*, *supra* note 33, 10 FCC Rcd. 8872, para. 83 & n.167.

(172). *See* Horizontal Guidelines, *supra* note 18, § 2.1, at 20,573-7. Such matters can be

stated as "character" issues rather than, or in addition to, competitive ones. *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, paras. 33-35 (1995).

(173). Even if the act is proven, there may be disagreements about whether it was

anticompetitive. Counsel who are accustomed to the friendly repartee that characterizes regulated oligopolies may have difficulty distinguishing between unlawful acts and the "rough and tumble" of the marketplace that benefits consumers. *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) para. 36 & n.56. *See also* Stamatakis Indus., Inc. v. King, 965 F.2d 469, 471 (7th Cir. 1992) ("Competition is ruthless, unprincipled, uncharitable, unforgiving—and a boon to society, Adam Smith reminds us, precisely because of these qualities that make it a bane to other producers.").

(174). If the anticompetitive act was committed by a merging company, then it is

potentially serious, but if the bad actor was a mere corporate relative, then it may be less so. *See, e.g., BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) para. 41 & n.70.

(175). § 7 of the Clayton Act on its face prohibits only those mergers that will reduce

competition. See *supra* note 6.

(176)" . *CMRS Third Report and Order*, 9 FCC Rcd. 7988, para. 24 n.20 (1994).

(177). *See* Metro Mobile CTS, Inc. v. Newvector Comm., Inc., 892 F.2d 62, 63 (9th Cir.

1989) ("Reliance on statistical market share in cases involving regulated industries is at best a tricky enterprise and is downright folly where, as here, the predominant market share is the result of regulation."); *AT&T-Alascom*, *Order and Authorization*, in File No. W-P-C 7037 et al., FCC 95-334, para. 45 (Aug. 2, 1995) (Analysis of competitive effects of a merger would recognize that competition in the relevant market was constrained by geography and express government policy that limited competition.).

(178). A recent example is the Commission's approval of a substantial concentration of

SMR licenses in the hands of one company, in part on grounds of the impending licensing of PCS and the removal of the prohibition of cellular companies providing SMR-like dispatch service. *Motorola, Inc.*, *Order*, 10 FCC Rcd. 7783, para. 18 n.51 (1995), *petition for reconsideration pending*.

(179). *See* Horizontal Guidelines, *supra* note 18, § 4, at 20,573-11 to -12.

(180). Economies of scale, or increasing returns to scale, exist when the average cost of

producing a product or service falls as the quantity of the product or service produced increases. Carlton & Perloff, *supra* note 9, at 920. *See also* Kalish v. Franklin Advisers, Inc., 742 F. Supp. 1222, 1239 (S.D.N.Y. 1990).

(181). Economies of scope exist when "it is less costly for one firm to perform two

activities than for two specialized firms to perform them separately." Carlton & Perloff, *supra* note 9, at 920. *See also* United States v. Western Elec. Co., 993 F.2d 1572, 1581 (D.C. Cir. 1993) (defining the economies of scope as "the capacity to produce related goods or services at an aggregate cost lower than the total for each produced separately.").

(182). *See generally* Richard A. Epstein, Simple Rules For A Complex World 125

(1995).

(183). There would be economies of scope if it cost less for one company to offer cellular

and paging services together than if two different suppliers offered the services.

(184). Some claim this was an advantage of the merger of AT&T and McCaw.

(185). The parties also must satisfy the usual standards for credibility. Relatively credible

evidence, for example, would be an estimate of savings that the acquiring company used in its business operations, such as in deciding whether to buy the acquired company or how much to pay for it. Less credible evidence would be a study that was created as evidence for use in litigation before the Commission. *See, e.g.*, Betts v. Shalala, Civ. A. No. 94- 2171-GTV, 1995 WL 164502, at *10 (D. Kan. Mar. 20, 1995) (testimony of a treating physician is entitled to more weight than testimony of a physician hired as an expert witness for litigation).

(186). *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, para. 46 (1995).

(187). *See* FTC v. Univ. Health, Inc., 938 F.2d 1206, 1222-23; FTC v. Owens-Illinois,

Inc., 681 F. Supp. 27, 52 (D.D.C. 1988).

(188). *See* Horizontal Guidelines, *supra* note 18, § 0.2, at 20,571 (The DOJ "assesses any

efficiency gains that reasonably cannot be achieved by the parties through other means.").

(189). After the merger, all these customers will be customers of the merged company;

and most cellular carriers do not impose roaming charges on their own customers.

(190). *See, e.g.*, CS First Boston, *supra* note 94, at 6.

(191). If the carriers were competitors, it would be a crime. *E.g.*, United States v. Hayter

Oil Co., 51 F.3d 1265 (6th Cir. 1995).

(192). *See* United States v. Falstaff Brewing Corp., 410 U.S. 526, 559 (1973) ("The

existence of an aggressive, well equipped and well financed corporation engaged in the same or related lines of commerce waiting anxiously to enter an oligopolistic market [is] a substantial incentive to competition which cannot be underestimated."); Rebel Oil Co. v. Atlantic Richfield Co., 51 F.3d 1421 (9th Cir. 1995).

(193)" . *See, e.g.*, McCaw Personal Comm., Inc., v. Pacific Telesis Group, 645 F. Supp.

1166, 1174 (N.D. Cal. 1986) (citing United States v. Waste Management, Inc., 743 F.2d 976, 982-83 (2d Cir. 1984)). *See also* Antitrust Law Developments, *supra* note 149, at 307-11 and cases cited *supra* note 149; Horizontal Guidelines, *supra* note 18, § 1.0, at 20,572 n.7, § 3, at 20,573-9 to 20,574.

(194). As long as the fact of impending or possible entry is considered in competitive

analysis, it may not matter to the outcome whether it is considered in product market definition, in naming competitors for HHI tables, or in an ease of entry "defense." *See* State of New York v. Kraft General Foods, Inc., 1995-1 Trade Cas. (CCH) ¶ 70,911, 1995 WL 77881, at *46 (S.D.N.Y. Feb. 22, 1995). The sooner in the analytical process is it considered, however, the sooner its impact, if any, is clear.

(195). State regulation of CMRS entry is defunct. *See CMRS First Annual Report*, 10 FCC

Rcd. para. 22 & n.31. However, local zoning and environmental procedures may pose major barriers to rapid entry into CMRS.

(196). Access by applicants to necessary financing is often challenged in mobile radio

licensing proceedings. *In re* Applications of Metro Mobile CTS, Inc., *Memorandum Opinion and Order on Reconsideration*, 8 FCC Rcd. 8675, paras. 21-30 (1993); Paging Network of Virginia, Inc., *Memorandum Opinion and Order*, 10 FCC Rcd. 1016, paras. 6, 12-19 (1995).

(197). Horizontal Guidelines, *supra* note 18, §§ 3.0, 3.3 & n.28, 3.4, at 20,573-10 (asking

whether entry "would be sufficient to return market prices to their premerger levels").

(198)" . *Id.* § 3.2, at 20,573-10.

(199). *See generally* FTC v. Owens Illinois, Inc., 681 F. Supp. 27, 51 (D.D.C. 1988).

(200). This consists of 3 MHz allocated to paging and 1.5 MHz allocated to precellular

mobile telephone service.

(201). *See, e.g.*, Letter from Robert M. Pepper, Chief, FCC Office of Plans and Policy,

to Sen. Joseph I. Lieberman (D-CT) 12-13 (May 5, 1995) (Contact the Office of Plans and Policy of the FCC for a copy of this letter at (202) 632-7000.). Spectrum that may be available for paging service in a few years includes the 3.5 MHz that is allocated to LEO satellites. *See supra* note 46.

(202). *See, e.g.*, *Cellular Companies Showing Little, If Any Interest in Dispatch*, Land

Mobile Radio News, July 28, 1995, *available in* LEXIS, Fedcom Library, Compub File.

(203). *See supra* note 46. The Commission has allocated 33 MHz for LEO satellites.

(204). *See supra* note 61, 171. Because of technical limitations, much of the spectrum

being transferred from the government may not be usable for mobile services without significant developmental research and testing.

(205). Some industry observers doubt the prospects of broadband PCS, especially for

creating three new providers of mobile telephone service outside large cities. *See supra* note 52.

(206). *See* Horizontal Guidelines, *supra* note 18, § 5, at 20,574; FTC v. University

Health, Inc., 938 F.2d 1206, 1221 (11th Cir. 1991).

(207). *AT&T-Alascom*, *Order and Authorization*, in File No. W-P-C 7037 et al., FCC 95-

334, para. 49 n.74 (Aug. 2, 1995) (Company has 60% market share largely because of its monopoly in unprofitable areas that it is obliged to serve.).

(208). A "failing" company is one that is close to ceasing operations. A "floundering"

company is one that is not yet failing, but shows significant signs of impending failure and has chronic problems that dash any realistic hope of recovery.

(209). For example, there is no known case of a cellular company ceasing operations.

CMRS First Annual Report, 10 FCC Rcd. para. 81.

(210). This could be classified initially as a conglomerate merger. The similarity of the

merging companies' services, however, makes it prudent to give it closer scrutiny than is normally given to conglomerate mergers. *See supra* notes 135-36.

(211). *See* FTC v. Procter & Gamble Co., 386 U.S. 568 (1967).

(212). *See, e.g.*, *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, paras. 45-46 (1995). For

a good description of the potential efficiencies and inefficiencies of horizontal integration in cable television, a business with some similarities to the cellular duopoly, see *In re* Implementation of Section 19 of the Cable Television Consumer Protection and Competition

Act of 1992, *First Report*, 9 FCC Rcd. 7442, paras. 148-156 (1994).

(213). Frequently, a competitor of one of the merging companies will complain that it has

not integrated horizontally as quickly as the merging companies propose to do, and that their "headstart" will confer on them an enormous competitive advantage. This argument fails because it raises the specter of harm to the competitor rather than that of harm to competition, which is the legitimate concern of competitive analysis. *See* Brown Shoe Co., Inc. v. United States, 370 U.S. 294, 320 (1962) and SBC Comm., Inc. v. FCC, 56 F.3d 1484, 1492, 1494-95 (D.C. Cir. 1995). The Commission has consistently rejected pleas by late-comers for relief from the headstarts of other, "fleeter-footed" licensees. *See, e.g.*, *In re* Nationwide Wireless Network Corp., *Memorandum Opinion and Order*, 9 FCC Rcd. 3635, 3638-39 (1994); *In re* GTE Mobilnet of Houston L.P., *Order on Reconsideration*, 8 FCC Rcd. 2728, n.5 (1993); *In re* Century Cellunet of Jackson MSA L.P., *Memorandum Opinion and Order*, 6 FCC Rcd. 6150, 6151 (1991).

(214). *See* Dep't of Justice and Fed. Trade Comm'n 1984 Merger Guidelines, 4 Trade

Reg. Rep. (CCH) ¶ 13,103, § 4.24, at 20,567; § 5.1, at 20,567 [hereinafter Vertical Guidelines]. The portions of the *Vertical Guidelines* cited in this Article are reaffirmed in the *Horizontal Guidelines*. Horizontal Guidelines, *supra* note 18, at 20,569.

(215). Concerning competitive analysis of vertical mergers generally, see Michael H.

Riordan & Steven C. Salop, *Evaluating Vertical Mergers: A Post-Chicago Approach*, 63 Antitrust L.J. 513 (1995).

(216). *Id.* at 519, 522-27.

(217). For example, the AT&T-McCaw merger combined a duopolist in cellular service

(McCaw) with a company in the relatively competitive business of interexchange service (AT&T). It was feared that McCaw would require its customers to use AT&T interexchange service, thus leveraging its power in cellular service to reduce competition in interexchange service. *Craig O. McCaw, Memorandum Opinion and Order*, 9 FCC Rcd. 5836, paras. 63- 67 (1994).

There is disagreement in the case law about whether the necessary showing of this danger is merely that the merged company will have an unreasonable advantage over its competitors or that it will achieve full-blown market power. *See* Fineman v. Armstrong World Industries, Inc., 980 F.2d 171, 204-06 (3d Cir. 1992) (comparing Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 276 (2d Cir. 1979), *cert. denied*, 444 U.S. 1093 (1980) ("[T]he use of monopoly power attained in one market to gain a competitive advantage in another is a violation of section 2 [of the Sherman Act], even if there has not been an attempt to monopolize the second market.") with Alaska Airlines, Inc. v. United Airlines, Inc., 948 F.2d 536 (9th Cir. 1991), *cert. denied*, 503 U.S. 977 (1992) (In order to prevail upon a theory of monopoly leveraging, a plaintiff must prove threatened or actual monopoly in the leveraged market.)).

(218). *See* Riordan & Salop, *supra* note 215, at 520-22, 527-51. When they are "locked

in" to the upstream merging company because of long-term contracts, proprietary technical specifications, or other unusual conditions, downstream competitors may be unable to obtain their inputs elsewhere. Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 451, 476-78 (1992); Digidyne Corp. v. Data General Corp., 734 F.2d 1336, 1341-44 (9th Cir. 1984), *cert. denied*, 473 U.S. 908 (1985); *Craig O. McCaw*, 9 FCC Rcd. paras. 54- 56.

(219). The Commission, however, found that likelihood to be minimal because if AT&T

did that, it would quickly lose hundreds of millions of dollars earned annually from the Bell Operating Companies (BOCs), who purchased its cellular networks. Moreover, the BOCs would never buy any PCS networks from AT&T. *Craig O. McCaw*, 9 FCC Rcd. paras. 109-13, *aff'd*, SBC Comm., Inc., v. FCC, 56 F.3d 1484, 1495-96 (1995). The BOCs also feared that AT&T would sell defective networks to McCaw's competitors and would provide inferior maintenance and repair to the networks it had already sold to them. Again,

the Commission found this fear to be fanciful because AT&T would lose the BOCs as customers. In both cases, the Commission found that such misconduct by AT&T would be rational, and, therefore, likely, only if there was a reasonable likelihood that McCaw would gain more in cellular service revenues than AT&T would lose in network sales. The Commission generally found no such likelihood. *But see Craig O. McCaw*, 9 FCC Rcd. paras. 56, 99, 182.

(220). For example, the AT&T-McCaw merger combined a duopolist in cellular service,

McCaw, with a competitor in the relatively competitive business of manufacturing cellular networks, AT&T. *Craig O. McCaw*, 9 FCC Rcd. paras. 50-56, 97-100. If there had been only two cellular service companies in the United States, and McCaw was one of them, McCaw might buy networks only from AT&T after the merger. Furthermore, as a practical matter, the AT&T-McCaw affiliation might prompt the other cellular service company to affiliate with another manufacturer (*e.g.*, Ericsson) and buy only from it, thus effectively eliminating all other manufacturers of cellular networks—Motorola, Northern Telecom, and Alcatel—and extending the duopoly from the downstream service market up to the manufacturing market. *See id.*

(221). Vertical Guidelines, *supra* note 214, §§ 4.211-12, at 20,566.

(222). *Id.* § 4.222, at 20,567. *See also* Horizontal Guidelines, *supra* note 18, § 2.12, at

20,573-8.

(223). Vertical Guidelines, *supra* note 214, § 4.221, at 20,566-67; Riordan & Salop, *supra*

note 215, at 557-61.

(224). Vertical Guidelines, *supra* note 214, § 4.23, at 20,567; Riordan & Salop, *supra*

note 215, at 561-64. In public utility law, this is the "affiliated interest" issue. It must be noted that if it is substantially likely that the vertical markets involved in the merger will become one as a result of regulatory action, changing technology, or consumer preference, then the merger is really a horizontal one and should be evaluated as such.

(225). *See* Thompson Everett, Inc. v. Nat'l Cable Advertising L.P., 57 F.3d 1317, 1325

(4th Cir. 1995) ("Because the antitrust laws are intended to protect competition, and not simply competitors, only injury caused by damage to the competitive process may form the basis of an antitrust claim."). *See also* Riordan & Salop, *supra* note 215, at 523, 530, 547- 50, 564 and sources cited *supra* note 214.

(226). Mergers can suffer from other defects that are relevant to the Commission's broad

"public interest" standard. Such defects include harm to universal telephone service and national security. These defects do not concern competition and are, therefore, not discussed in this Article.

(227). For cases in which the Commission has imposed conditions, see, e.g., *Craig O.*

McCaw, *Memorandum Opinion and Order*, 9 FCC Rcd. 5836, paras. 176-85 (1994); Nextel Communications, Inc., *Order*, 10 FCC Rcd. 3361, para. 46 (1995); *In re* GTE Corp. & Southern Pacific Co., *Memorandum Opinion and Order*, 94 F.C.C.2d 235, 262-63 (1983); *In re* GTE Corp. & Telenet Corp., *Memorandum Opinion and Order*, 91 F.C.C.2d 215, 217-22 (1982); *In re* GTE Corp. & Telenet Corp., *Memorandum Opinion and Order*, 72 F.C.C.2d 111, 135-49 (1979); *In re* Xerox-Western Union Int'l, Inc., *Memorandum Opinion and Order*, 74 F.C.C.2d 471, 496 (1979); *In re* Texas Broadcasting Corp., Assignor and the Times Mirror Co., Assignee for Assignment of Licensee of Station KTBC- TV, Austin, Tex., *Application*, 42 F.C.C.2d 997, 998 (1973).

(228). For example, in cellular mergers that result in the merged company having interests

in both cellular systems in a geographic market, the Commission requires that one interest be divested. *See, e.g.*, *BAMS-NYNEX*, 77 Rad. Reg. 2d (P & F) 1487, paras. 22-23 (1995); *In re* Contel Cellular Inc., *Memorandum Opinion and Order,* 6 FCC Rcd. 2080 (1991).

(229). For a description of the costs and benefits of separate subsidiary requirements, see

Amendment to the Commission's Rules Concerning Maritime Communications, *First Report and Order*, 10 FCC Rcd. 8419, paras. 19-21 (1995). Independent of any transfer or merger, the Commission has authority under §§ 218 and 303 (g) of the Communication Act to investigate and regulate the corporate structure of companies within its jurisdiction. 47 U.S.C. §§ 218, 303(g) (1994). *See also In re* American Tel. & Tel. Co., 64 F.C.C.2d 1 (1977), *on reconsideration*, 67 F.C.C.2d 1429 (1978); and Michael K. Kellogg et al., Federal Telecommunications Law 119 (1992) (The Commission "may control which carriers compete . . . and under what corporate structures.").

(230). *See, e.g.*, *Craig O. McCaw*, 9 FCC Rcd. paras. 56, 99, 182.

(231). *Id.* paras. 116, 180. *See, e.g.*, *In re* MCI Comm. Corp. & British Tel. plc,

Declaratory Ruling and Order, 9 FCC Rcd. 3960 *passim* (1994). The knowledge that any misconduct will be reported will disuade the merged company from engaging in it, especially if competitors who review the information are large companies with experienced research staffs.