IV. Unilateral Effects Analysis

83. In its *Cingular-AT&T Wireless Order*, the Commission followed its initial structural analysis with a more detailed market-by-market evaluation of the potential for anticompetitive unilateral effects. The Commission focused on a number of factors that would be relevant to the evaluation of these effects. In this section, we first set out the framework for unilateral effects analysis. We then examine the key economic factors. These factors include the closeness of substitution between Sprint and Nextel, the potential for competitor repositioning and expansion, and the efficiency benefits of the merger.

A. Unilateral Effects Framework

84. In the *Cingular-AT&T Wireless Order*, the Commission concluded that wireless service is a differentiated product. It then followed the basic framework in the *Merger Guidelines* for analyzing unilateral effects in differentiated product markets. We also follow that framework. We examine the likelihood that the merged firm would gain the power and incentive to raise its post-merger price unilaterally, that is, even if it assumes that other competitors would not follow its price increase.

85. The most serious unilateral effects concerns arise when the merged firm becomes by far the largest firm in the market. In every Telephia market but one (Brownsville TX), Sprint Nextel's market share is under 50% (and [ ] in Brownsville).[47] In contrast, Cingular and AT&T Wireless had a combined subscriber share of more than 50% in 30 of the Telephia markets. These markets, and Cingular's shares, are listed in Table 5. For example, absent divestitures, Cingular would have achieved a subscriber share of [ ] in Tupelo MS, [ ] in Hammond LA, and [ ] in Telephia's Texas 6-Jack market. Moreover, many of the markets in which Cingular had a dominant market share were

[47] In this market, T-Mobile is the next-largest competitor, with a market share of [ ].

located in the ILEC regions of BellSouth and SBC. In over a third of these 30 markets, the Commission conditioned its approval of the Cingular-AT&T Wireless merger on spectrum or asset divestitures.

86. At least three key economic factors may deter unilateral price increases – low diversion ratios between the merging parties, the ability of rivals to reposition and expand output in response to a price increase, and the efficiencies of the merger. We discuss these three factors in turn.

B. Diversion Ratios and Closeness of Substitutes

87. The more distant substitutes are the products of the merging firms, the smaller is the post-merger incentive to raise price, other things equal. In the pre-merger market, a firm's profit-maximizing price is set at the level where the additional profits gained from the higher price charged to customers who remain with the firm are just equal to the profits lost from customers who switch to other firms, or purchase less. After the merger, the firm recaptures lost profits from the fraction of its lost customers who switch to the service of the now-acquired rival. This fraction is called the *diversion ratio* and affects the degree of profit recapture. As the diversion ratio decreases, the profit recapture rate decreases, and the incentive to raise price correspondingly declines.[48] As discussed below, there is no evidence that Sprint and Nextel are each other's next-best substitute. This suggests that the diversion ratio between them should be relatively small.

1. Customer focus

88. Sprint and Nextel do not share a common customer focus, which reduces the extent to which Sprint customers regard Nextel as a close substitute for Sprint, and similarly for Nextel's customers. Nextel's focus is much more skewed toward enterprise customers than is Sprint's. This

[48] As discussed earlier, if the wireless firm is owned by an ILEC, its profit recapture calculation will also include the diversion to and from its wireline operations, which can further raise its incentives to increase both wireless and wireline prices.

difference in focus also is reflected in part by the features that each promotes. Nextel is noted for its enterprise-friendly push-to-talk feature. In contrast, Sprint promotes color screen handsets, picture phones, data use, and the elimination of overages that are designed to appeal to non-enterprise customers.

2. Customer switching data

89. We have also reviewed data from Nextel and Sprint on customer switches following the introduction of wireless local number portability ("WLNP") and from exit surveys conducted by both merging parties. Evaluating subscriber switches by Nextel and Sprint subscribers can provide insight into the extent to which consumers regard Nextel and Sprint as close substitutes relative to other carriers. Although a single observation of switching behavior in a market may not always accurately measure long-term substitution behavior, switching patterns over a longer period of time can nonetheless be helpful in assessing whether two services are each other's closest substitutes. The data indicate that Sprint and Nextel are not each other's closest substitutes.

a) Number Portability Data

90. The WLNP data indicate that the subscriber switches between Sprint and Nextel are lower than those between each firm and their ILEC-affiliated competitors. Of the subscribers that left Nextel in 2004, only [ ] switched to Sprint. In contrast, [ ] of the lost Nextel subscribers switched to [ ] and [ ] switched to [ ] and [ ]. (See Table 6.)

91. Similarly, of the subscribers that left Sprint in 2004, only [ ] switched to Nextel. In contrast, [ ] of those Sprint subscribers switched to [ ] and [ ] switched to [ ] and [ ]. Thus, according to these data, Sprint and Nextel do not appear to be particularly close competitors.

92. This WLNP data can be disaggregated into residential and enterprise subscribers with the same result. In the residential segment, only [ ] of the lost Nextel subscribers switched to Sprint, versus [ ] to [ ] and [ ] to [ ] and [ ]. (See Table 7.) For Sprint's residential customers, only [ ] switched to Nextel versus [ ] to [ ] and [ ] to [ ] and [ ].

93. In the enterprise segment, only [ ] of the lost Nextel subscribers switched to Sprint, versus [ ] to [ ] and [ ] to [ ] and [ ]. (See Table 8.) For Sprint's exiting enterprise customers, only [ ] switched to Nextel versus [ ] to [ ] and [ ] to [ ] and [ ].

94. Using the WLNP data to predict diversion ratios is subject to several criticisms, some of which have been previously noted by the Commission.[49] First, the WLNP data involve all switches, not just those that arise in response to price increases. Second, because many subscribers have long-term contracts with their carriers, the originating carrier may no longer be the next-best alternative to the subscriber's new carrier by the time that the subscriber actually makes the switch. Third, the WLNP data contain two different measures of switching, the number of subscribers who switch away from a carrier ("port-out") and the number who switch to a carrier ("port-in"). There can be substantial differences between the two measures. Fourth, the WLNP data do not identify subscribers who reduce their wireless usage or drop their wireless subscriptions altogether. We discuss these criticisms briefly, in turn, and conclude that they do not undermine the use of these data for competitive analysis. That is, these criticisms do not imply that Sprint and Nextel should be regarded as especially close competitors, but rather that the porting data may have some limitations in assessing the closeness of substitution.

[49] *Cingular-AT&T Wireless Order* ¶ 131.

95. *Use of Historical Data on all Switches:* Aggregate historical switching data capture substitution from all causes, not just price changes. For example, suppose that subscribers care about quality as well as price. If one carrier reduces its quality, the resulting substitution pattern could be different from the substitution pattern that would occur if the carrier instead had raised its price.[50] However, because competition involves quality as well as price, substitution in response to quality differences still could be relevant to unilateral effects analysis.[51]

96. *Long-Term Contracts:* Historical switching data also can be potentially misleading when there are long-term contracts. The long-term contracts can slow down consumer switches and carrier rankings can change during the interim. This possibility suggests that porting data provide "noisy" measures of substitutability among carriers, but not necessarily that they produce biased measures.

97. *Multiple Diversion Measures:* The diversion ratio could be measured from data on switches away from (ports-out) or switches to (ports-in) a carrier. These two measures generally will differ because the total number of switches away from each of the other carriers will affect the percentage of a carrier's new subscribers who come from any particular carrier, not just the consumer preferences among the carriers. For this reason, substitution away from a carrier provides a better estimate of the diversion ratio than substitution to a carrier.

98. *Overstatement of Diversion Ratios:* Switching percentages may overstate actual diversion ratios. When a carrier raises its price, some subscribers will shift to other wireless carriers. Other dissatisfied customers instead stay with their current carrier but reduce their wireless usage. In addition,

[50] Only if all of the carrier's subscribers value the carriers on the basis of quality per dollar of cost, and all subscribers measure quality changes in the same way, would the price and quality diversion ratios be equal.

[51] If the Commission decides that unilateral effects analysis should be focused solely on price, then the use of quality-based diversions could bias the results, but the direction of any bias would be unclear.

some dissatisfied customers may decide to give up wireless service entirely instead of switching to a new wireless carrier. The estimated diversion ratio should take account of these factors. These factors imply that the total number of subscribers who switch away from a carrier is likely to understate the carrier's total volume loss.[52]

99. *Conclusion.* The WLNP data have limitations. Nonetheless, observing over a significant period of time that Nextel subscribers consistently tend to switch more to Cingular and Verizon Wireless than they do to Sprint provides evidence that Nextel customers regard Cingular and Verizon Wireless as better substitutes for Nextel than Sprint, so that Cingular and Verizon Wireless will have higher diversion ratios. Similar evidence suggests that Sprint customers also regard Cingular and Verizon Wireless as better substitutes than Nextel. In addition, the comparable results from the Nextel and Sprint exit surveys discussed next increase the confidence in these data for inferring consumer substitution patterns and relative diversion ratios.

b) Nextel's Exit Surveys

100. We also have reviewed data from exit surveys that Nextel conducted among its departing subscribers at the end of 2004. The exit survey results also indicate that Sprint's wireless service is not the next-best choice of most Nextel customers, although they may be subject to some of the same kinds of criticisms as the WLNP data.

[52] The impact of the overstatement of diversion ratios on gauging incentives would be smaller for an ILEC-affiliated wireless carrier. That carrier would take into account the substitution between wireless and wireline caused by price changes. For example, customers who are deciding whether to drop a wireline number for wireless, or what type of additional telephony service to obtain, would be more likely to stick with wireline if the carrier's wireless prices were higher. The ILEC-affiliated carrier would reckon the (marginal) impact on its wireline profits into its wireless pricing calculus, whereas the independent wireless carrier would not.

101. Nextel's survey asked departing customers to identify their replacement wireless provider if they have switched, or intend to switch, carriers. As reported in Table 9, only about [ ] of these departing customers identified Sprint. In contrast, [ ] identified [ ] as their replacement carrier and [ ] identified [ ]. The pattern was similar when the sample was split into enterprise and residential customers and into different regions. Only about [ ] of the enterprise customers and [ ] of the residential customers identified Sprint as the replacement carrier. [ ] and [ ] were the replacement carriers for the vast majority of exiting Nextel subscribers.

102. Nextel also tabulated the results for three separate regions of the country-North, South and West-with the same results. The percentage of exiting Nextel subscribers who identified Sprint as their replacement carrier was only [ ] in the North, [ ] in the South, and [ ] in the West.

103. Like the WLNP data, the use of the exit surveys to infer service substitutability is not problem-free. However, as with the WLNP data, there is no reason to believe that the data are biased. Therefore, these data can be useful as evidence for inferring the low likelihood of adverse unilateral effects in this matter.

c) Sprint's Exit Surveys

104. Sprint also conducts exit surveys of its departing customers. These surveys identified a subset of exiting customers who identified price as their main reason for leaving Sprint.[53] The Sprint survey results are consistent with the Nextel surveys and the WLNP data. As reported in Table 10, fewer than [ ] of departing Sprint customers who said that they switched on the basis of price moved

[53] This data set only includes those subscribers who switched to another major carrier, not customers who switched to regional carriers or dropped their wireless service entirely. Thus, the calculated diversion ratios would be overstated.

to Nextel, versus [ ] who switched to [ ] and [ ] who switched to [ ].

105. These data are not subject to the criticism that the results may reflect choices made in response to factors other than price changes. In addition, because the results from the Sprint exit surveys are consistent with the results from the WLNP data and the Nextel exit surveys, one can place greater confidence in the use of all of these data to predict low substitution between Sprint and Nextel.

106. A substantial fraction of all exiting Sprint customers also reported that they dropped wireless service altogether. For the summer of 2003, the apparent diversion to "no wireless service" (presumably, to wireline service only) was [ ]. In the summer of 2004, the corresponding figure was [ ]. These results suggest that wireline options apparently continue to play a significant role in the decisions of consumers in choosing wireless service. These results also suggest that the wireline cannibalization rate may be substantial and that the switching data overstate diversion ratios among wireless carriers.

C. Competitor Repositioning and Expansion

107. If competitors can easily reposition their products and expand their output in response to a competitor's unilateral price increase, that price increase will be less profitable. In the case of wireless mobile service, rivals could increase the number of cell sites and more closely match, for example, the calling plans of the merging firm. As discussed below, our analysis indicates that the ability of competitors to reposition and expand would significantly constrain the profitability of unilateral price increases by Sprint Nextel.

108. In its review of the Cingular-AT&T Wireless transaction, the Commission noted that a key factor in its competitive effects evaluation was the availability of spectrum that rival carriers might

use to absorb subscribers from the merged firm in the event of a post-merger price increase. In particular, for a sample of markets, the Commission asked "whether other carriers could absorb in the near term an increase in subscribers equal to 10 percent of the merged entity's subscribers in that market."[54]

109. Specifically, the Commission noted that "where a firm is already present in a market, has comparable service coverage, and has excess capacity relative to its current subscriber base, it should be able to adjust rates, plan features, handsets, advertising, etc., in the short run."[55] The Commission went on to state, "As a technical and operational matter, it will generally be feasible for firms to add customers quickly because excess capacity is often available and because non-trivial increases in the capacity to service customers can be realized rapidly in established cellular and PCS mobile radio systems."[56] This suggests that if Sprint Nextel were to attempt a unilateral price increase, rivals could respond by expanding their service and repositioning their subscriber plans to be more similar to those offered by Sprint Nextel, attracting customers away from Sprint Nextel, and thus reducing the price-increasing incentive of the merged firm.

110. Of course, the strength of the rivals' response to a unilateral price increase by Sprint Nextel depends importantly on whether rivals can expand the number of subscribers that they serve (e.g., by cell splitting or increasing coverage) without incurring any significant increase in incremental costs and without incurring any reduction in the quality of service. Determining whether sufficient spectrum capacity exists to permit the carriers to absorb the additional Sprint Nextel subscribers under

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[54] *Cingular-AT&T Wireless Order* ¶ 136.

[55] *Id.* ¶ 134.

[56] *Id.* ¶ 135. The Commission also noted that "there are limits to repositioning. Firms may not be able to add quickly to their operating footprints, purchase additional spectrum if needed, secure tower siting permits, improve overall quality, or deploy a new technology." *Id.* ¶ 137.

these conditions is a complicated technical and economic matter, given the factors that affect spectrum efficiency, including the particular spectrum band that is being used, geographic conditions, and differences in technologies, among others.

111. There are many more markets in which Cingular-AT&T Wireless has a dominant share of subscribers than will Sprint Nextel. At the same time, Sprint Nextel's rivals will generally have more capacity than do the rivals of Cingular-AT&T Wireless. Sprint Nextel has more than 60 MHz of spectrum in only one of the 79 local markets that were identified for further analysis by the most conservative adjusted version (i.e., 10%-adjusted) of the Commission's structural screens. In contrast, Cingular-AT&T Wireless has more than 60 MHz in almost half of the markets (among the 79 markets) for which we have carrier-specific spectrum shares.[57]

112. In this Declaration, we have implemented, on a market-by-market basis, the Commission's suggestion to evaluate the number of additional subscribers that rivals could serve with their existing spectrum capacity.[58] We do not know precisely how the Commission conducted its own analysis. In this Declaration, we make the assumption that full capacity in a market is equal to the maximum number of subscriber share points that can be supported by 1 share point of spectrum among the major carriers. We use the carrier in each market with the largest subscriber share relative to its spectrum share to calculate this assumed maximum. We then apply that maximum to every firm in the market to determine the maximum subscriber share points that rivals of Sprint Nextel could support. These assumptions may be refined with subsequent analysis. To estimate the ability of the Sprint Nextel rivals to absorb additional share points, we then subtract the current share of the rivals from the (assumed) maximum supportable share points of the rivals.

[57] We only have spectrum shares for carriers other than Sprint and Nextel for a subset of the markets.
[58] *Cingular-AT&T Wireless Order* ¶ 136.

113. This difference thus estimates the ability of the rivals using existing spectrum to absorb additional subscribers, which we refer to as the rival's Subscriber Absorption Capacity (SAC). We then use the SAC measure for each carrier to determine whether rivals collectively have sufficient excess spectrum capacity to absorb 10% of Sprint Nextel subscribers, if those subscribers wished to switch carriers in response to a hypothetical post-merger unilateral price increase by the merged firm.

114. To illustrate our methodology, assume that Sprint Nextel's three rivals in a hypothetical market have the subscriber and spectrum shares listed in the example below. The largest ratio of subscriber share to spectrum share is for Carrier A, for which every share point of spectrum supports 1.67 subscriber share points. If we assume that this ratio represents full capacity utilization for all three rival carriers, then the other carriers can support maximum subscriber shares of 12.5% each (i.e., 1.67 times 7.5%). Because each of these rivals currently accounts for 5% of subscribers, each has a SAC equal to 7.5 share points, as shown in the last column of the example. Taken together, the total SAC for these competitors (i.e., 15%) exceeds 10% of Sprint Nextel's subscriber share in this illustrative example.

Subscriber Absorption Capacity (SAC): An Example

	Subscriber Share	Spectrum Share	Ratio	Maximum Subscriber Share	SAC
Sprint Nextel	65%	70%	.93	na	na
Carrier A	25%	15%	1.67	25%	0
Carrier B	5%	7.5%	0.67	12.5%	7.5%
Carrier C	5%	7.5%	0.67	12.5%	7.5%
	100%	100%			15.0%

115. We recognize that this methodology is subject to a number of caveats. First, we used the carrier in each market with the largest subscriber share relative to its spectrum share to calculate the assumed maximum capacity utilization. This assumption does not take into account possible differences in maximum spectrum utilization of various carriers. It also means that markets will differ significantly with respect to the assumed number of subscribers that can be served with a given amount of spectrum. Consequently, the results calculated for some markets may turn out to be implausible. Second, at this time, the spectrum share data for all carriers necessary to carry out this analysis is available to us only for the top 106 markets. For other markets, we only have data for the spectrum holdings of Sprint and Nextel. To deal with this data limitation, we calculated the maximum (full-capacity) subscriber share points per spectrum share point in these smaller markets based on the average of the maximums of the top 106 markets, which is a ratio of 1.77. We may be able to modify this assumption if additional data on spectrum holdings become available to us. Third, in those markets for which we did not have carrier-specific spectrum data, we assumed that a total of 200 MHz of spectrum is available in each of those markets, as described by the Commission in the *Cingular-AT&T Wireless Order*.[59]

116. The approach used here to measure excess spectrum capacity is conservative in several significant dimensions. First, the "full capacity" carrier is assumed to be incapable of absorbing *any* additional customers beyond the normal growth at stable prices, so that there is no subscriber capacity cushion available to that carrier. A subscriber capacity cushion would further deter post-merger price increases.

117. Second, in calculating available spectrum capacity, the SAC test excludes unassigned Auction 58 spectrum. The acquisition and use of additional spectrum by Sprint Nextel's competitors would further deter post-merger price increases. If a market fails to pass the SAC test, it would be

[59] *Id.* ¶ 81.

necessary to examine the results of Auction 58 to determine whether additional spectrum is being made available to Sprint Nextel's rivals in that market. In this regard, the Commission has noted that the ability to deter post-merger price increases may depend in part on the ability of rival carriers "to obtain access to additional spectrum suitable for the provision of mobile telephony services in the relevant market in a reasonably short period of time."[60] In evaluating the Cingular-AT&T Wireless transaction, the Commission considered the impact of additional spectrum from both Auction 58 and from spectrum that could be leased from NextWave.

118. Third, to the extent that wholesale customers of Sprint, Cingular, and Verizon Wireless have longer-term, fixed-price contracts for wireless service, these customers can expand their retail sales in the event of a post-merger price increase. Thus, these wholesale customers can act as a further constraint on the pricing of Sprint Nextel. However, in this Declaration, we do not take this factor into account in the SAC analysis.

119. Finally, even if a market fails to satisfy the SAC test, a unilateral price increase would not necessarily be profitable. If it were to impose a price increase, Sprint Nextel would lose subscribers to other carriers and wholesalers, as well as experience reduced sales to subscribers who cut their usage or drop wireless service altogether, such that the price increase could be unprofitable. Thus, the SAC test does not mark the end of the analysis.

120. Table 11 reports the results of our preliminary SAC analysis for the 79 markets that were identified by the adjusted levels of the structural screens. In all but one of these markets, other carriers have more than sufficient spectrum capacity to absorb 10% of Sprint Nextel subscribers. Even in the Brownsville TX market, where Sprint Nextel will have a subscriber share of [ ], the SAC methodology indicates that its rivals would have sufficient excess capacity to absorb an additional 87

[60] *Id.* ¶ 189.

share points, or [ ] times the [ ] share points that that they would need to absorb under the Commission's 10% output reduction assumption.

121. The only market that fails the SAC test for unilateral effects is Minneapolis. In that market, Sprint Nextel will have a subscriber share of [ ] and, as a result, rivals of the merged firm must have sufficient excess SAC to absorb [ ] share points in order to defeat a hypothetical unilateral price increase. However, according to the method used in our calculations, Sprint Nextel's rivals could absorb only 0.3 share points, which seems implausibly small in light of Sprint Nextel's modest leading market share.

122. The reason for this small SAC is that the maximum ratio of subscriber share to spectrum share in Minneapolis is only 1.09, one of the lowest ratios in the entire data set. Given the rapid wireless subscriber growth (i.e., 14% nationally), it seems implausible that there is so little room for expansion in Minneapolis and that the "full capacity" carrier does not have any subscriber capacity cushion beyond normal growth. After all, Sprint Nextel will have a subscriber share of less than [ ], which means that its competitors would need to expand their volumes by only about 4% each (e.g., from a [ ] share to a [ ] share) to close the [ ] share point gap.[61] The merged firm would face three other national competitors, each with more than a [ ] subscriber share, so making up this small gap seems highly likely.

123. Even if the current capacity in Minneapolis is found to be so limited that the gap cannot be absorbed with current spectrum capacity, the spectrum capacity in the market will grow. We understand that 40 MHz of additional spectrum will become available in Minneapolis as a result of Auction 58. This increased spectrum will further reduce any competitive concern if Sprint Nextel's competitors obtain some of it. Thus, following the Commission in accounting for excess spectrum

[61] That is, [ ] share points is about 4% of [ ] share points.

capacity as a post-merger competitive constraint, the SAC test using the data available to us for this Declaration suggests that there are unlikely to be unilateral-effects concerns.[62]

D. Efficiencies

124. Unilateral incentives to raise price are reduced if the merger generates significant variable cost reductions.[63] Such reductions would create incentives for the merged firm to reduce its price in order to sell more output. As we have discussed earlier, the merging parties believe that the Sprint-Nextel combination will create substantial synergies between the two firms and that many of these efficiencies will lead to pressure to reduce wireless prices.

125. In Section II of this Declaration, we reviewed the substantial efficiency benefits that the parties have estimated for this merger. These efficiencies have not been estimated on a market-by-market basis. Nonetheless, they provide a significant pro-competitive factor that should be taken into account by the Commission.

E. Conclusions on Unilateral Effects

126. This SAC analysis of competitor repositioning and expansion suggests that there are unlikely to be any markets for which a claim of a significant post-merger unilateral price increase would raise significant competitive concerns. The analysis of diversion ratios does not indicate that Sprint and Nextel are each other's closest competitors. The analysis of efficiencies also suggests that the merger would have pro-competitive tendencies that would deter unilateral price increases. Thus, based on our analysis to date, and subject to the qualifications discussed above regarding the data and assumptions

[62] We also evaluated the SAC for the 16 markets that were identified by the Commission screen but not the 10% adjusted screen. *Each* of the 16 markets has enough SAC to absorb 10% of the share of Sprint Nextel.

[63] This could also take the form of a reduction in the quality-adjusted price if the firm offers better products at the same price.

used in the SAC analysis, we conclude that there are unlikely to be adverse unilateral effects from this merger.

V. Coordinated Effects Analysis

127. In its *Cingular-AT&T Wireless Order*, the Commission also examined the potential for a wireless merger to facilitate anticompetitive coordinated effects, either through explicit or tacit coordination. In its analysis, the Commission considered a number of factors, including the number of firms in a market, transparency of information, firm and product homogeneity, differing positions on the technology path, the presence of mavericks, existing cooperative ventures, and carriers' excess capacity.

128. The Commission concluded that there was no evidence that the wireless competitors had restricted competition through coordinated interaction in specific markets, or that the Cingular-AT&T Wireless combination would make coordinated interaction more likely as a general matter. Indeed, the Commission noted as a general matter that it was "persuaded...that certain characteristics of the mobile telephony market environment, including firm heterogeneity and the presence of carriers with excess spectrum or network capacity, may continue to make it difficult for carriers first to reach terms of coordination and then effectively to detect and punish deviations in specific markets."[64]

129. Moreover, the Commission found it implausible that even a small subset of carriers would be able to reach an enforceable price agreement. In particular, the Commission noted that even though the shares of Verizon Wireless and the post-merger Cingular would become more similar, it was unlikely that even these two wireline-affiliated carriers would be able to coordinate. As the Commission stated, "since Verizon Wireless has already differentiated its brand from rival offerings based on network coverage and voice quality, Cingular may be less willing to agree to restrict competition on

[64] *Cingular-AT&T Wireless Order* ¶ 164.

other terms, such as promotions and advertising, which could offset or narrow this advantage."[65] In that paragraph, the Commission also cited differences in current and future technology positioning, equipment costs, and migration issues that would further complicate efforts to reach coordinated agreement even between the two ILEC-affiliated carriers.

130. In this section, we review the factors raised by the Commission in the context of the Sprint-Nextel transaction. We also examine the role of the efficiency benefits of the transaction and network effects.

131. *Number of Firms*: The merger of Sprint and Nextel will reduce the number of national competitors by one. However, there still will be four national competitors in most large markets and many smaller markets, as well as regional competitors.[66] Moreover, the reduction in the number of firms and increase in concentration is not by itself a sufficient basis for concluding that coordinated interaction is likely in a market like this with no history of coordination. As the Commission stressed in its review of the Cingular-AT&T Wireless transaction, "market share data are the beginning, not the end, of the competitive analysis."[67]

132. *Pricing Transparency:* The Commission observed that carriers regularly monitor their rivals' prices and packaging for residential customers, but that they have little information about rivals' pricing to enterprise customers.[68] This suggests that pricing coordination would be a greater concern for residential customers.

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[65] *Id.* ¶ 157.

[66] *Id.* ¶ 154.

[67] *Id.* ¶ 96.

[68] *Id.* ¶ 154.

133. Although carriers monitor each other's prices, reaching and enforcing an agreement may be complicated by the complexity of pricing plans. For example, we understand that Nextel has at least 25 plans available to consumers and that, within each plan, there are numerous options involving such factors as the size and composition of the minutes in the "bucket" and the charges for overages. Moreover, we understand that numerous firms allow their employees (and their families) to purchase wireless services for their personal and family use through their employers. As a result, any post-merger incentive to raise residential prices may be blunted by the ability of many individuals to acquire wireless service through their employers. In this situation, the high degree of competition for enterprise customers also would constrain the prices charged to individuals when they purchase directly from wireless carriers.

134. *Firm and Product Homogeneity:* Significant asymmetries will remain after the merger of Sprint and Nextel. Products will remain differentiated. Sprint Nextel will have somewhat different incentives because of Nextel's higher share of enterprise customers. In addition, we have already discussed the significant incentive differences that flow from Verizon Wireless' and Cingular's ILEC affiliations. These differences in firm characteristics are obstacles to any post-merger effort to coordinate pricing.

135. *Technology Development and Competition:* Coordinated interaction is less likely to succeed in wireless telephony because of the dynamic nature of the market. The wireless market has been, and continues to be, in the process of technological change as carriers deploy 2.5G and 3G services, and the robustness of consumer demand for these services is uncertain. In addition, the differences in the positioning of the firms on their technology paths will remain substantial following the merger and will continue to complicate pricing agreement and enforcement. Finally, investments in

these markets are quite lumpy. This is the kind of dynamic market environment that is not conducive to successful tacit coordination.

136. *Network Effects:* The wireless market also is subject to network effects because of the lower costs to the carrier of on-net calls and the customer benefits of push-to-talk calls.[69] The desire to create network effects increases the benefits of deviating from a coordinated outcome. Although the Commission suggests that network effects have not had a significant impact so far, they are yet another factor that would complicate coordination.[70]

137. *Mavericks:* The Commission noted in its review of the Cingular-AT&T Wireless transaction that regional carriers would remain potential mavericks.[71] In addition, the Commission concluded that "no single nationwide carrier is uniquely positioned to be a maverick."[72] Indeed, it concluded that even Verizon Wireless and Cingular may be mavericks in some markets.[73] These same points will remain equally valid after the merger of Sprint and Nextel. Thus, this merger does not involve the acquisition of a unique maverick.

138. *Cooperative Ventures:* The Commission raised concerns about cross-ownership arrangements.[74] These concerns would not appear to apply to the Sprint-Nextel merger. In addition, we have counted Sprint affiliates and Nextel Partners as part of the merged firm in our analysis.

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[69] "Network effects arise when the value of a product increases with the number of consumers who purchase it." *Id.* ¶ 143.

[70] *Id.* ¶ 145.

[71] *Id.* ¶ 161.

[72] *Id.* ¶ 162.

[73] *Id.* ¶ 162.

[74] *Id.* ¶ 163.

139. *Efficiencies:* The efficiencies created by the Sprint-Nextel merger will make coordinated interaction less likely. By reducing its costs, the newly merged firm will have a greater incentive to deviate from a proposed coordinated outcome and expand its output instead.

140. *Spectrum Capacity:* Attempts to coordinate are less likely to succeed if rivals have sufficient capacity to expand without any significant increase in incremental costs or reduction in the quality of service. The availability of that capacity would increase incentives to defect from the terms of coordination. It also would permit firms that are not part of the coordinating group to reposition and expand in response to price increases and output restrictions by the coordinating group. As the Commission noted, "a rival carrier may have a strong incentive to deviate from the terms of coordination if it has excess spectrum and (or) network capacity relative to the traffic generated by its existing customer base."[75]

141. We have already discussed the SAC algorithm for measuring the ability of carriers to absorb additional subscribers and applied it to the unilateral effects analysis. In this section, we employ the SAC methodology to evaluate the potential for successful coordination between the two leading firms in a market.[76] We estimate whether the remaining smaller firms, who are not part of the assumed coordinating group, will have sufficient SAC to absorb 10% of the *combined* shares of the two leading firms, if they were to attempt a coordinated price increase. The SAC analysis of coordinated effects is subject to the same caveats and data limitations discussed with respect to unilateral effects.

142. We have applied the SAC methodology to the subset of the 79 Telephia markets identified by the adjusted structural screen where Sprint Nextel would be one of the two leading firms.

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[75] *Id.* ¶ 187.

[76] As noted earlier with respect to unilateral effects, failure to satisfy the SAC test does not necessarily mean that a coordinated price increase would be profitable.

This identifies a total of 61 markets.[77] The combined subscriber share of the two leading carriers in these markets ranges from a low of [ ] for Sarasota FL to a high of [ ] in Wilson TX. Although the hypothetical coordinating firms likely would not be able to reach agreement unless both of their market shares are high, we applied the algorithm to all of these markets, not just those that satisfied some particular market share threshold. The results of our calculations appear in Table 12.[78]

143. To illustrate the application of the SAC methodology to coordination by the two leading firms, consider the example of St. Louis. In this market, the combined share of Sprint Nextel and Cingular-AT&T Wireless (the other leading firm) will be [ ]. Using the Commission's 10% output reduction standard, the issue is whether the other smaller carriers have sufficient SAC to absorb [ ] share points in the event of a hypothetical coordinated price increase by these two firms. The SAC methodology described earlier suggests that the remaining carriers could absorb an additional [ ] share points, or about 2.8 times the capacity required to absorb the [ ] share point output reduction (i.e., [ ]/[ ]). Therefore, the SAC algorithm suggests that pricing coordination will be unlikely to succeed in the St. Louis market in the face of repositioning and expansion by rivals.

144. The SAC methodology for coordinated effects indicates that rivals are able to absorb the requisite share point output reduction in 55 of the 61 markets that we analyzed. In only six markets, Hammond LA, Kansas City, Minneapolis, Houston, Chicago, and Wilson TX is this not the case.

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[77] Whether or not the Commission chooses to use our adjustments to its structural screens, the Commission's competitive analysis should still recognize the differences between this transaction and the Cingular-AT&T Wireless transaction in its public interest evaluation, including the differences resulting from the lack of ILEC affiliation, the more credible efficiency benefits, and the differences in spectrum holdings.

[78] Note that we have spectrum data for the leading carriers only for the top 106 markets. For others, we have only the spectrum holdings of Sprint and Nextel. In markets that were identified by our 10% adjusted screen, we assume that the non-Sprint Nextel member of the two leading firm group has a spectrum share proportional to its subscriber share. This assumption may lead to inaccurate results in some cases.

However, there are several reasons why there are unlikely to be coordinated effects problems even in these six markets.

145. *Minneapolis:* We have already discussed Minneapolis in the unilateral effects section. We note here that the assumptions used for applying the SAC methodology to the potential for coordination between Sprint Nextel and Verizon, the other leading firm in Minneapolis, produce the implausible result that the estimated SAC is negative. Interpreted literally, this would mean that the rivals in these two markets lack enough spectrum even to support the subscriber shares that they currently have. This result occurs because the maximum ratio of subscriber share to spectrum share estimated for Minneapolis is only 1.09, far lower than the ratio found for many large markets.[79] If even a modestly higher ratio (of 1.28) had been applied to Minneapolis, the resulting SAC would have been sufficient to absorb all the necessary subscribers. Similarly, if even a small subscriber cushion had been assumed, the same result would be obtained.

146. Moreover, further economic analysis of Minneapolis suggests that there would not be a coordinated effects issue in this market. First, additional spectrum will be added in Minneapolis as a result of Auction 58. This additional spectrum can increase the SAC of smaller rivals and increase their ability to deter post-merger coordinated price increases. For example, if rivals obtain only 11 MHz of the 40 MHz being auctioned for Minneapolis, that alone will be sufficient to absorb the requisite subscriber share. Second, the Commission expressed its greatest concern about coordinated effects in markets with only two competitors.[80] In Minneapolis, all four national firms will be present after the Sprint-Nextel merger, all of which will have subscriber shares of at least [ ]. In fact, Sprint Nextel and Verizon Wireless will have a combined share of only [ ]. This means that the smaller non-

[79] In this regard, we note that the data set for Minneapolis was incomplete. Some rival carriers have subscriber shares but had no reported spectrum holdings in the data set that we used.

[80] *Cingular-AT&T Wireless Order* ¶ 191.

coordinating firms already supply over [ ] of subscribers. This factor would make attempted coordination between the two leading firms less likely to succeed.

147. *Kansas City:* A similar economic analysis applies to this market. First, additional spectrum will be added in Kansas City in Auction 58. In fact, if rivals obtain only 11 MHz of the 30 MHz being offered in Kansas City, that alone would be sufficient to absorb 10 percent of the subscribers of the two leading firms. Second, in Kansas City, Sprint Nextel and Cingular will have a combined share of only [ ]. This means that non-coordinating firms currently have a combined share of almost [ ] of subscribers, which will make coordination between the two leading firms less likely to succeed. In addition, all four national firms will be present in Kansas City and each will have a subscriber share of at least [ ] after the merger.

148. *Chicago:* No additional spectrum will be added in Chicago in Auction 58. However, in Chicago, Sprint Nextel and Cingular will have a combined share of only [ ]. This means that non-coordinating firms already supply more than [ ] of subscribers, which would make attempted coordination between the two leading firms less likely to succeed. In terms of number of firms, there will be five firms present in Chicago with subscriber shares of at least [ ] after the merger, the four national firms plus US Cellular, which has a market share of [ ].

149. *Houston:* As in the case of Minneapolis, we estimated a negative value for SAC, which suggests that the maximum ratio of subscriber share to spectrum share, 1.18, used in the SAC calculation, may be too low. If that ratio had been only modestly higher (at 1.36), rivals would have sufficient SAC to absorb 10% of the subscribers of the two leading firms. Beyond the SAC test, similar economic analysis applies to this market. First, additional spectrum will be added in Houston in Auction 58. In fact, if rivals obtain 12 MHz of the 20 MHz being offered in Houston, this alone would be sufficient to absorb all the necessary subscribers. Second, in Houston, Sprint Nextel and Cingular will

have a combined share of only [ ]. This means that non-coordinating firms already supply more than [ ] of the subscriber share, which would make coordination between the two leading firms less likely to succeed. In Houston, all four national firms will be present after the merger, each with a share of at least [ ].

150. *Wilson TX and Hammond LA:* The SAC results for both Wilson TX and Hammond LA are distorted by the data limitations we faced. The assumptions that we made result in a significant overestimate of Cingular-AT&T Wireless' combined spectrum share, which were estimated to be in excess of 80 MHz in both markets. Once those overestimates are corrected, both of these small markets pass the SAC test by a substantial margin.[81]

151. Based on the Commission's methodology and our SAC analysis to date, there are unlikely to be coordinated effects problems resulting from this merger. In the 55 of the 61 Telephia markets where Sprint Nextel would be one of the two leading firms, the SAC test indicated that rival carriers had sufficient capacity to absorb at least 10 percent of the subscribers of the two leading firms, if those firms were to attempt to raise their prices after the merger. For the four large markets for which this is not the case, other economic factors, together with the use of assumptions that are more

[81] As discussed earlier, we do not know the spectrum holdings of any carriers other than Sprint Nextel for the Telephia markets outside the top 106 markets. Therefore, we used information from these larger markets to estimate the "full capacity" subscriber share/spectrum share ratio. In addition, for the coordinated effects analysis for these smaller markets, we had to estimate the spectrum holdings of the other leading firm. To do so, we assigned the spectrum share not held by Sprint Nextel to the other leading carrier in proportion to its subscriber share in that market. This methodology leads to an overestimate of the spectrum holdings of Cingular-AT&T Wireless, which are found to exceed 80 MHz using this assignment methodology. We understand that Cingular-AT&T Wireless will not have more than 80 MHz in any market after the merger. *Cingular-AT&T Order,* note 103. Assuming, therefore, that Cingular has no more than 80 MHz in these two markets, the SAC in Wilson is more than 6 times the amount required to absorb 10% of the combined shares of the two leading carriers ([ ] share points). In Hammond, the assumption results in a SAC that is 5 times the amount necessary to absorb 10% of the combined shares of the two leading firms in this market (i.e., [ ] share points). It is possible that a similar overestimate would apply to some other markets in which Sprint Nextel is not one of the two leading firms.

appropriate to these markets, indicate that there are unlikely to be significant coordinated effects issues. Finally, in Hammond LA and Wilson TX, the initial SAC test was distorted by incomplete spectrum holdings data. After correcting for this distortion, however, these two small markets passed the SAC test.[82]

VI. Intermodal Competition

152. In its *Cingular-AT&T Wireless Order*, the Commission raised concerns about the impact of that merger on intermodal competition.[83] In this Declaration, we have already discussed the fact that a wireless carrier that is owned by a significant ILEC has the incentive to charge higher wireless and wireline prices. We also have discussed the fact that the integrated ILEC has the incentive to charge higher access prices and to degrade the access that it offers to its local exchange network to wireless competitors. Integrated firms also have potential marketing advantages from their ability to bundle wireline and wireless services.

153. In its analysis of the Cingular-AT&T Wireless transaction, the Commission concluded that the potential public interest harms from a loss in intermodal competition are currently quite limited

[82] We also examined those 16 Telephia markets that were identified by the Commission's screen, but not by our 10% adjusted screen. Sprint Nextel would be one of the two leading firms in only 5 of these markets. In only 2 of these 5 markets does our estimate of the SAC indicate that rivals would have insufficient capacity to absorb 10% of the subscribers of the two leading firms. In Tampa, one of these two markets, the combined shares of the two leading firms is less than [ ] and there will be 5 firms with market shares of at least [ ]. In addition, the SAC calculation is negative, highlighting the limitations of this approach discussed earlier. In San Antonio, the maximum ratio of subscriber share to spectrum share is just above unity (1.06), which, like Minneapolis, should be viewed as implausibly low. If that ratio were raised to only 1.15, the rivals of the two leading firms would have sufficient spectrum capacity to absorb 10% of the combined share of the two leading firms. In addition, we understand that 30 MHz of spectrum in San Antonio will be made available in Auction 58. If non-coordinating carriers would obtain at least 12 MHz in these auctions, that alone would be sufficient for them to absorb the requisite number of subscribers of the two leading carriers. In all of these markets, we only considered coordination between the two leading firms, because coordination among more than two firms would face even greater obstacles. See *Cingular-AT&T Wireless Order* ¶ 191.

[83] *Cingular-AT&T Wireless Order* ¶¶ 237-246.