Chapter 3
Trends in the United States Mobile Wireless Industry and the Impact of a Merger of AT&T and T-Mobile on the Trends and Overall Competitiveness of the Wireless Industry

John B. Meisel
Southern Illinois University Edwardsville, USA

John C. Navin
Southern Illinois University Edwardsville, USA

Timothy S. Sullivan
Southern Illinois University Edwardsville, USA

ABSTRACT
Thirty years ago, the United States Federal Communications Commission (FCC) gave birth to the mobile wireless industry by granting two licenses in each cellular geographic market across the United States. In the next three decades the FCC continually provided more access to the electromagnetic spectrum which is a critical input for the provision of mobile wireless communications services to, in part, promote a more competitive market structure in the mobile wireless industry. One objective of this chapter is to describe and analyze the trends in the overall competitiveness of the mobile wireless market during this time by utilizing a modified Porter competitive forces framework. This analysis will be supplemented with an analysis of the most recent proposed merger in the mobile wireless industry – between AT&T and T-Mobile. The proposed merger is an example of a continuing trend in the industry, consolidation of national mobile wireless carriers. This chapter will analyze the impact of proposed merger on the ability of the remaining mobile wireless carriers to constrain the market power of the national wireless carriers in the industry. Specifically, the arguments for and against the merger by major stakeholders are reviewed. There are signs that the mobile wireless industry may return to a duopoly structure. Recommendations regarding the horizontal merger will be offered.

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INTRODUCTION

It looks increasingly likely that wireless networks will be the voice and data communications technology of the future. Since its beginning, the wireless communications industry has undergone significant changes in its market conditions and is often described as a dynamic industry. Wireless telecommunications in the United States started in the early 1980s when the United States’ Federal Communications Commission (FCC) initiated the process of awarding two spectrum licenses in 734 cellular market areas (306 metropolitan service areas and 428 rural service areas) spanning the United States. Spectrum is a critical factor of production to provide mobile wireless services. The decision to award two cellular licenses in each area (with one reserved for the incumbent wireline local exchange telecommunications carrier) effectively created a duopoly market structure for cellular phone service in the emerging mobile industry. Each cellular license granted the recipient 25 megahertz (MHz) of spectrum residing in the 800 MHz band, a band with excellent propagation characteristics to provide mobile wireless communications. Thus, the FCC first granted 50 MHz of spectrum for the provision of wireless cellular phone communications. Since this time, the industry has experienced tremendous changes in the demand for and supply of wireless communications. A focus of this chapter describes some of the key historical demand-side and supply-side changes and identifies significant trends in the industry today. Issues that have arisen in evaluating the impact of a proposed $39 billion horizontal merger between two of the four national wireless carriers, AT&T and T-Mobile USA (a U.S. wireless subsidiary of Deutsche Telekom AG), on the competitiveness of the industry are used to highlight and examine these historical and current trends.¹

Trends that are described and examined in this chapter include the following:

1. There has been a significant increase in the overall demand for wireless services, including an increase in the use of wireless devices (e.g., smartphones and tablet computers) to receive a wireless broadband connection to the Internet to engage in data communications.
2. Prices in output markets for wireless services have declined in real terms markedly, and various measures of outputs have increased dramatically.
3. New players have entered the broader wireless ecosystem, including new wireless carriers, operating system suppliers, such as Apple and Google, and applications developers.
4. There has been consolidation in the number of national wireless carriers (two of which (AT&T and Verizon) are integrated wireline and wireless carriers), which is associated with significant increases in market concentration in the mobile industry.
5. There has been a substantial increase in the amount of spectrum the federal government has allocated for use by wireless carriers, and there is an FCC plan to further increase the allocated spectrum by 500 MHz in the next 10 years to address the projected explosive growth in the use of mobile data services.
6. There are likely to be continued technological improvements in the utilization of existing spectrum to provide wireless services.

These historic and current trends are examined through an investigation into issues emanating from the proposed merger between AT&T and T-Mobile. Comments of major stakeholders in the industry are reviewed to identify specific positions on these issues. The proposed merger has generated concerns/issues such as the following: