

**Comparison of Structure, Conduct and Performance:
U.S. versus Europe's Wireless Markets**

**The American Consumer Institute
Center for Citizen Research
August 22, 2007**



The American Consumer Institute

For More information visit www.theamericanconsumer.org

Comparison of Structure, Conduct and Performance: U.S. versus Europe's Wireless Markets

Executive Summary

There is a belief by some that the domestic wireless market lags the European market in terms of consumer choice, consumer use and competitive prices. This has created a perception that the U.S. wireless market is failing, leading to calls for increased market regulations and the adoption of an European-style wireless model. This paper examines the evidence of market failure by comparing market concentration, usage and prices in the U.S. to international markets, including Europe. This report finds:

- The U.S. wireless market offers more choice and is less concentrated than any Western country's wireless market;
- U.S. consumers use an average of 800 wireless minutes per month, while most European consumers use less than 200 minutes per month;
- U.S. wireless prices are the lowest in the world, with the exception of Hong Kong; and
- The combination of higher usage at lower prices presents compelling evidence that the overall consumer welfare derived from wireless service is higher in the U.S. than internationally.

In summary, a comparison of international statistics suggests that the U.S. wireless market, in fact, leads its European counterparts, and the U.S. wireless market, compared to Europe, appears to be more competitive and vibrant. The contention that concentration leads to higher prices, lower usage and decreasing consumer welfare does not appear to be a U.S. problem, and furthermore, the contention that the U.S. lags the European market and needs some regulatory remedy is without empirical merit.

Comparison of Structure, Conduct and Performance: U.S. versus Europe's Wireless Markets

Introduction

A frequent claim is that the European wireless market has more choices, more consumers, is healthier and has lower prices, compared to the U.S. wireless market. For many years, statistics from the Organisation for Economic Co-operation and Development (OECD) have shown Europe far ahead of the U.S. in terms of cellular service penetration. Suggestions that the U.S. wireless market is slower to innovate and generally lags other parts of the world have contributed to a recent FCC's decision to place additional rules upon bidders of an upcoming wireless spectrum auction. In testimony before the U.S. House of Representatives, senior counsel for Consumers Union testified that "in Europe and Asia, wireless consumers have better choices."¹ Referring to the U.S. market, this testimony states, "instead of innovating, the wireless industry has become a cozy cartel of a few dominant providers with limited device offerings."² All of these concerns have fueled a debate over the need to correct the U.S. wireless market, including proposals to add regulations, including the adoption of an European-style model.

If there is a problem, a healthy public policy debate is needed to address how to fix it. However, what this debate has lacked thus far is a review of empirical evidence before coming to conclusions that regulatory remedies should be considered. The purpose of this paper is to analyze whether the U.S. market actually lags Europe and, if so, the extent of the gap.

Evaluating Market Failure

Economic theory provides guidance for regulation as a possibly remedy, but only if markets fail and the remedy addressing this market failure (e.g., government regulation) lead to net social benefits. Therefore, in this study, the contention that the U.S. lags Europe will be evaluated by comparing the wireless industry's structure, conduct and performance in search of actual market failure.

¹ Chris Murray, "Wireless Innovation and Consumer Protection," testimony before the U.S. House of Representatives on Telecommunications and the Internet, Committee on Energy and Commerce, July 11, 2007.

² Ibid.

The contention that the U.S. lags Europe is supported by the following hypothesis – the U.S. market is more concentrated than the European market, leading to higher consumer prices in the U.S, and lower penetration rates in the U.S. Based on this market failure, the end result of this is that consumer welfare would be lower in the U.S., compared to Europe. This is a testable hypothesis.

Market Structure

Data from the OECD and FCC suggest that the U.S. wireless market is not as concentrated as markets in Europe, or elsewhere for that matter. Using data from the OECD, the table on the next page shows that the U.S. wireless market has a higher number of wireless competitors than in Europe or any other county. Therefore, according to publicly available information, the conclusion that Europe has more competitors and more choice is incorrect. This point is also supported by a Merrill Lynch report,³ as well as several consulting reports.⁴ In terms of choice among devices, CTIA reports that the U.S. offers 700 different wireless handsets compared to about 190 for the U.K.⁵

Looking at the number of wireless operators “permitted” to provide wireless broadband services, according to the table, the U.S. leads all European counties. However, what these statistics do not show is that “U.S. mobile operators have the flexibility to upgrade their networks to 3G on their existing 2G networks (cellular, PCS, SRM) spectrum,”⁶ while European GSM operators must rebuild their networks. This means that the OECD figures understate the number of permitted U.S. operators, and explains how the U.S. is rolling out wireless broadband services so quickly and sometimes offering services that provide twice the speed of European wireless broadband services.⁷

³ Glen Campbell, et. al., “Global Wireless Matrix 1Q07: Latin Fever,” Merrill Lynch, June 15, 2007, table 1.

⁴ Marius Schwartz and Federico Mini, “hanging up on *Carterfone*: The Economic Case Against Access Regulation in Mobile Wireless, May 2, 2007; George S. Ford, Thomas M. Koutsky and Lawrence J. Spiwak, “Wireless Net Neutrality: From *Carterfone* to Cable Boxes,” Phoenix Center for Public Policy, Bulletin No. 17, April 2007; and Mark Lowenstein, Comparisons Between U.S. and European Markets for Wireless Services and Devices: Myth vs. Reality,” July 2007.

⁵ CTIA ex parte communications with the FCC, WC Docket No. 07-52, July 24, 2007.

⁶ OECD Communications Outlook, OECD, Table 21., p. 35, fn. 7

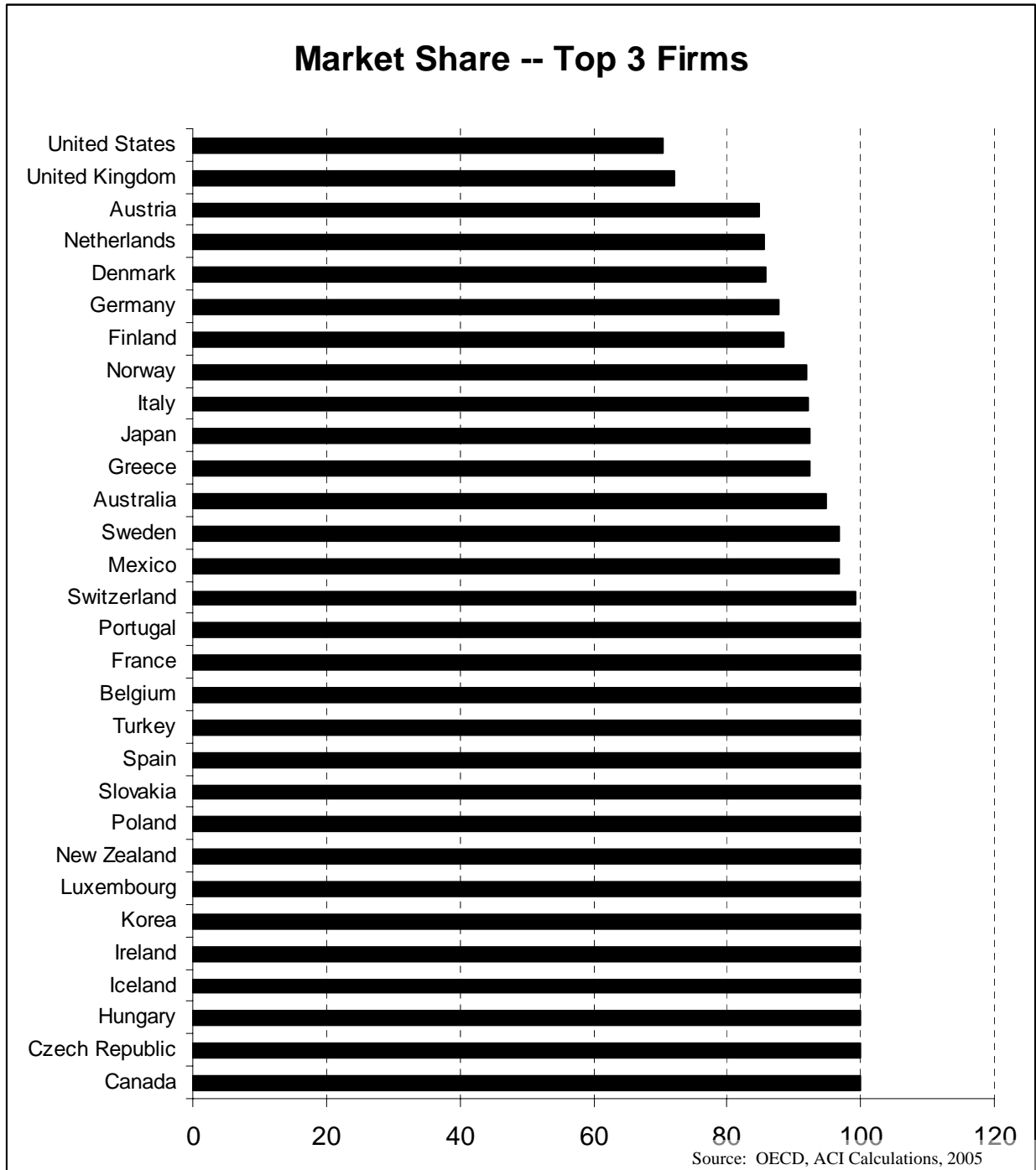
⁷ Walter S. Mossberg, “Cingular Joins Rivals with Fast, Reliable Wireless Broadband, *Wall Street Journal*, January 19, 2006.

Number of Wireless Operators in 2005

	Mobile Operators	Broadband Licenses
Australia	4	4
Austria	4	4
Belgium	3	3
Canada	17	2
Czech Republic	3	3
Denmark	4	4
Finland	15	3
France	25	3
Germany	4	4
Greece	4	3
Hungary	3	3
Iceland	3	0
Ireland	4	3
Italy	3	4
Japan	17	12
Korea	3	3
Luxembourg	3	3
Mexico	18	1
Netherlands	4	4
Norway	3	3
Poland	3	4
Portugal	3	3
Slovakia	2	2
Spain	3	4
Sweden	4	4
Switzerland	5	4
Turkey	3	0
United Kingdom	5	5
United States	155	5+

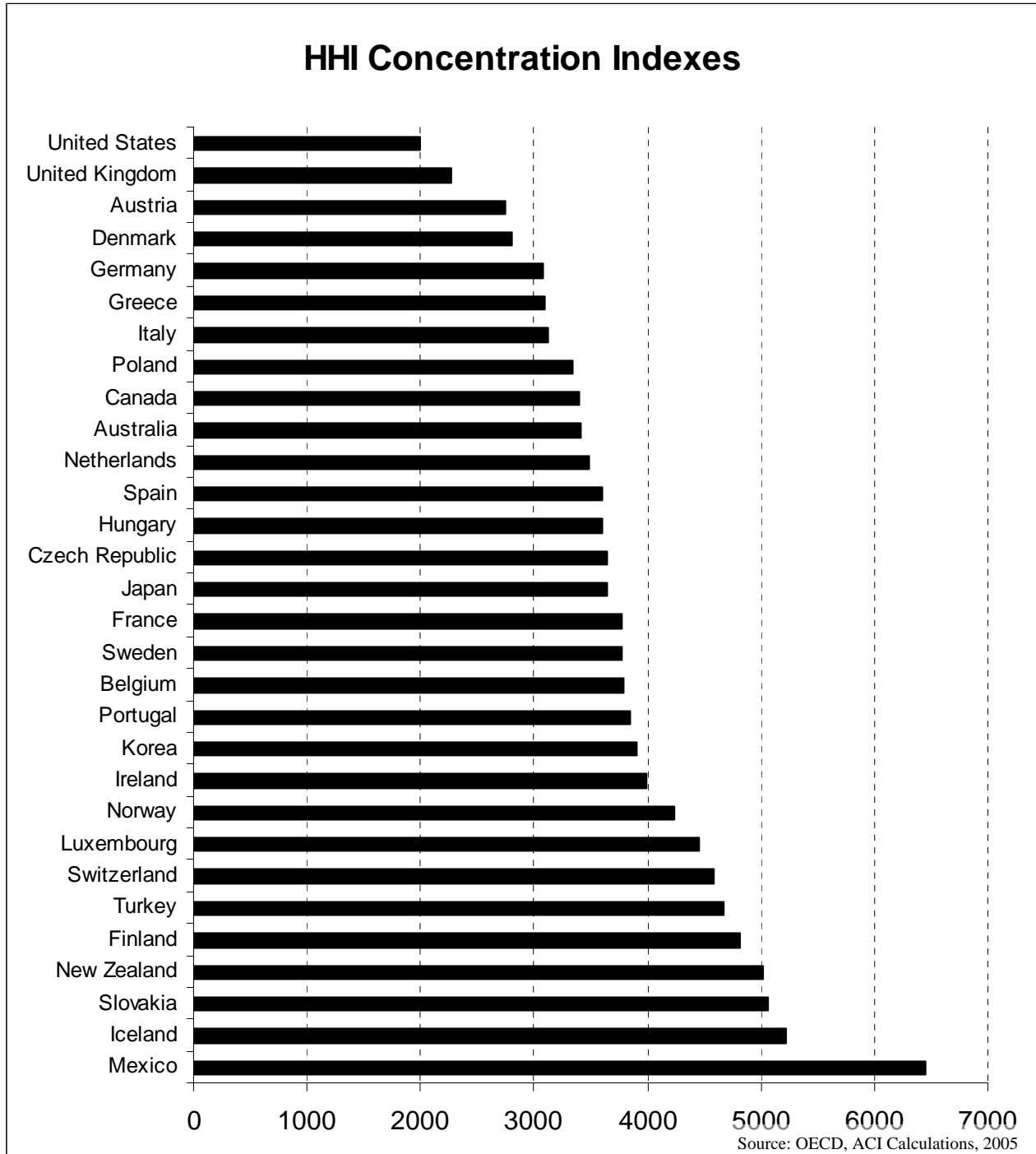
Source: OECD Communications Outlook, OECD, 2007, p. 35.

Is it possible that the U.S. market has more wireless operators, but it is dominated by only a few? Using the OECD data, the chart below graphs the market share for the top 3 wireless providers and shows that the contention that the wireless market is a “cozy cartel” is less a U.S. problem than it is a European one.



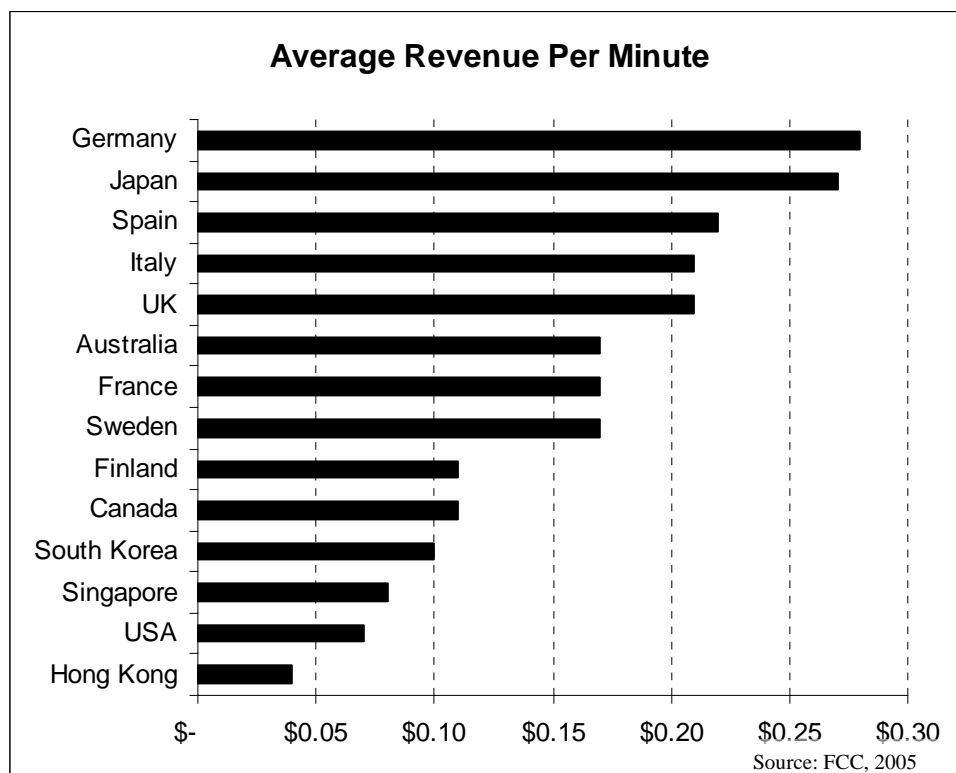
A final way to look at industry concentration is to use the measure widely accepted by the Department of Justice, Federal Trade Commission and world courts – the Herfindahl-Hirschman Index. We find that the U.S. has the lowest concentration index, when compared to all of the

OECD listed companies. In summary, the U.S. wireless market has more operators and is less concentrated than any other international market for which data are available.



Conduct and Performance

If the U.S. market is not as concentrated as its European counterparts, could it still operate as a “cozy cartel,” effectively driving up consumer prices and restricting supply? This, too, is a testable hypothesis. FCC data show that the U.S. has the lowest rates (measured by revenue per minute) of any major developed economy with the exception of Hong Kong. To this, the FCC concludes “mobile calls continue to be significantly less expensive on a per minute basis in the United States than in Western Europe or Japan.”⁸ Therefore, not only is the U.S. less concentrated, but it offers more competitive prices than other countries.

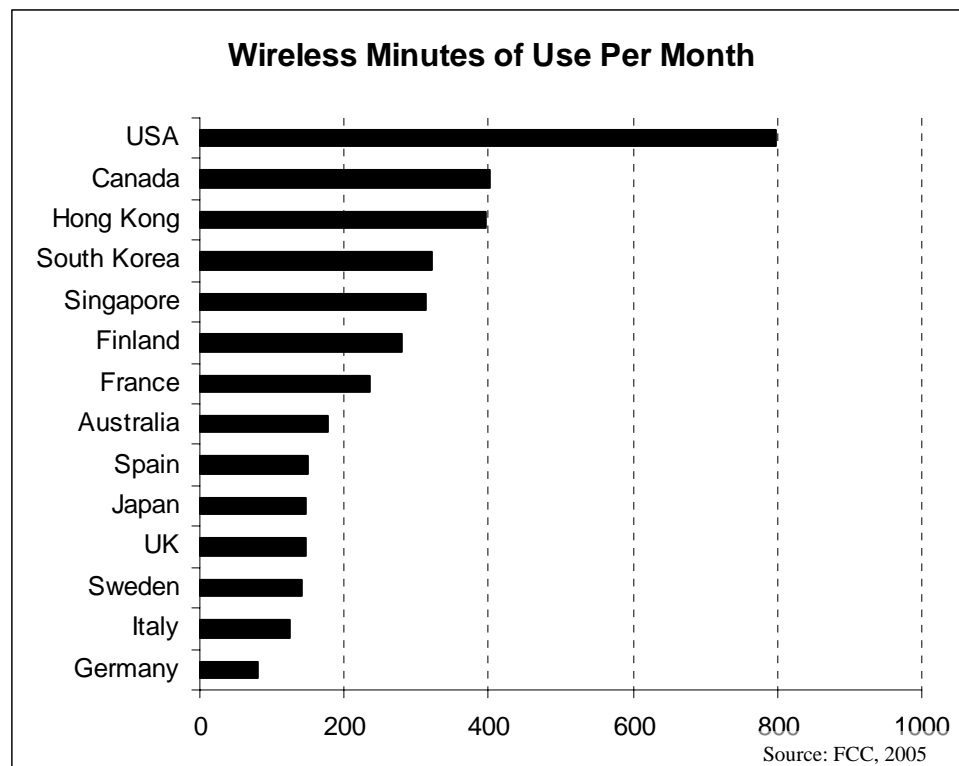


It is important to note that Europe uses a “calling party pays” system that bills customers for originating minutes, whereas, in the U.S. system, customers are billed for both originating and terminating minutes. This means that the U.S. system counts more minutes, which would affect the relative comparison of average monthly usage and price. Schwartz and Mini conducted an independent analysis of this, correcting for differences in payment system and

⁸ Eleventh Wireless Report, FCC, released September 29, 2006.

found U.S. prices to be lower than all of the major European countries.⁹ Their analysis also shows that U.S. prices have decreased faster as a percent or in absolute terms, compared to all major European countries.¹⁰

Another adverse effect of market power is restriction of supply, which leads to consumer welfare losses. However, as the chart below shows, data from the FCC once again show that the U.S. market is not a problem. In 2005, U.S. wireless consumers talked for 800 minutes per month, while consumers in some European nations average less than 200 minutes. In other words, the more concentrated European wireless markets charge consumers substantially more per minute, which, in turn, leads to lower usage by consumers.

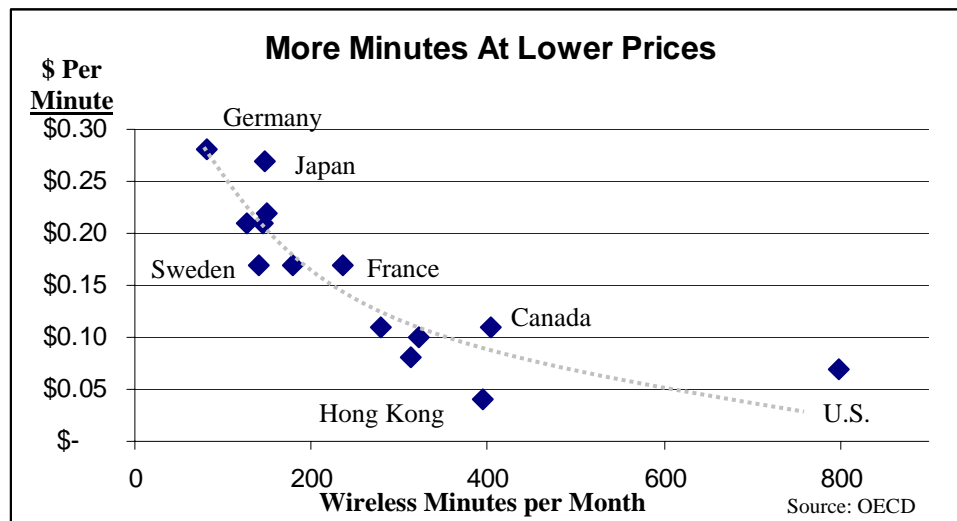


⁹ Marius Schwartz and Federico Mini, “hanging up on *Carterfone*: The Economic Case Against Access Regulation in Mobile Wireless, May 2, 2007, p. 12-14. They also make a correction for the prevalence of dormant (not active) phones in European statistics.

¹⁰ Ibid. Schwartz and Mini note a comparable decline for Spain.

These conclusions hold up even after accounting for differences in measurement between Europe and the U.S. Specifically, Schwartz and Mini show that the average U.S. consumer uses about three times more minutes per month than the average European consumer.¹¹

Another comparative observation is that the relationship between usage and price appears to be negatively correlated. As depicted in the chart below, as wireless prices increase, customer minutes decrease. This means that U.S. consumer benefits (as measured by consumer welfare) from wireless services exceed their European counterparts. From these data, we conclude that market failure appears to be a European problem, not a U.S. problem.



Caveat: Potential Problem with OECD Published Data

This report has shown that the U.S. market has lower market concentration, more competitive prices and greater acceptance among consumers. However this finding is counter to published international data on market penetration. The problem with these international statistics is that they do not count the same things. In the U.S., wireless subscriptions primarily reflect the number of handsets in operation. However, in the Europe, the statistics reflect the number of Subscriber Identity Module (SIM) cards. Because European roaming rates are so high between countries, it is sometimes economical for consumers to have more than one SIM card per handset, in order for consumers to take advantage of lower in-country rates. As a result, one

¹¹ Ibid.

wireless customer may have several SIM cards and be counted multiple times in the OECD statistics. In addition, pre-paid wireless plans are more prevalent in Europe than in the U.S., and these customers tend to use wireless services much less than post-paid customers. Correction of these differences will decrease the reported European penetration rate relative to the U.S.

Conclusion

Calls for a regulatory remedy are not based on sound empirical evidence. The data from the OECD and FCC show that European wireless markets have higher concentration, higher prices and lower usage. From this analysis, the U.S. wireless market gives consumers more choice, offers more competitive prices and encourages more consumption. Compared to Europe, reported problems of high market concentration, high consumer prices, low usage and decreasing consumer welfare do not appear to be a U.S. problem. In summary, there is no evidence of market failure or that the U.S. wireless market somehow lags behind the European wireless market. In fact, if anything, basic comparisons of consumer welfare between these markets demonstrate the opposite conclusion.