Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
	)	
CTIA Petition for Expedited Declaratory Ruling on Early Termination Fees	)	WT Docket No. 05-194
	)	

Supplemental Declaration of Harold W. Furchtgott-Roth

December 10, 2007

I. Introduction and Summary

A. Previous declaration in this proceeding

I have previously submitted a declaration in this docket.[1] The findings of that declaration with respect to early termination fees (ETFs) are no less true today than when the paper was prepared last year. In particular, the following conclusions still hold:

1. Multiple wireless carriers vigorously compete for customers;
2. Consumer complaints are not a reflection of limited competition, and the FCC receives a relatively small and declining number of complaints plausibly related to ETFs;
3. Each wireless carrier has multiple offerings, including both prepay and hybrid plans without ETFs, designed to meet the needs of different consumers;
4. American consumers value the wide range of choices of wireless service plans both with and without early termination fees, and the vast majority choose plans with ETFs due to the benefits received;
5. ETFs are a common part of the unregulated rate structure of services in other industries;
6. Consumers pay less for wireless services and handsets with term contracts with ETFs than with plans without ETFs; consumers generally receive more minutes and services with ETF plans;
7. There is no economic reason to expect ETFs to be exactly the same, and the magnitude of ETFs for individual carriers is not unreasonably large relative to revenue or cost structure;

[1] WT Docket No. 05-194, Declaration of Harold Furchtgott-Roth, ("Furchtgott-Roth Declaration") June 6, 2006.

8. Rather than just a “false choice,” American consumers have many attractive choices for wireless services with frequent opportunities to switch, and they frequently choose wireless plans with ETFs;

9. Most American consumers never breach wireless contracts, never pay ETFs, and never complain about ETFs;

10. Prorating ETFs would not improve consumer welfare and is not a sensible form of regulatory intervention; and

11. Limiting the range of wireless service ETFs would substantially harm American consumers.

B. Review of the AARP Report

Recently, I have been asked by CTIA to review from an economic perspective a paper prepared by Christopher A. Baker of the AARP Public Policy Institute, “Breaking Up is Hard to Do,” (the “AARP Report”) submitted to the Commission earlier this month.[2]

I have reviewed the AARP Report. In the report, AARP claims that ETFs are part of a larger pattern of anticompetitive behavior by U.S. wireless carriers to raise switching costs for wireless consumers. Based on my review of the AARP Report, and based on my background in economics and my understanding of the wireless industry, I reach the following conclusions:

1. The wireless industry is competitive;

2. Consumers have many places to seek independent views on selection of wireless services;

[2] Christopher A. Baker, “Breaking Up Is Hard to Do: Consumer Switching Costs in the U.S. Marketplace for Wireless Telephone Service,” AARP Public Policy Institute (“AARP Report”). Submitted by AARP in WT Docket No. 05-194, November 1, 2007.

3. There is no evidence that consumer switching of wireless services in America is suppressed;

4. ETFs are part of the competitive rate structure of many industries;

5. The AARP Report's switching theory with respect to ETFs does not match the U.S. wireless industry;

6. A proper analysis using the AARP Report's switching cost framework could reasonably conclude that ETFs facilitate switching;

7. The AARP Report confuses switching costs with other costs and quantifies neither;

8. The AARP Report's discussion of "Carrier Strategies for Managing and Increasing Switching Costs" is inaccurate and misleading;

9. The AARP Report's focus on switching costs is not derived from the Telecommunications Act of 1996; and

10. The AARP Report's conclusions and policy recommendations have no foundation and are unreliable.

II. The wireless services industry is competitive

The Commission and market analysts consistently find the wireless services industry to be competitive.[3] Over the years, the industry has witnessed substantial entry and exit of firms from the industry, substantial product and service innovation, and substantial reduction in prices. In fact, one could observe that the only constant in the commercial mobile wireless industry is change. For example, T-Mobile USA,[4] Sprint

[3] For a summary, see Furchtgott-Roth Declaration at 7-11. For links to the Commission's CMRS Competition Reports, see http://wireless.fcc.gov/index.htm?job=cmrs_reports.

[4] Press Release, T-Mobile USA, T-Mobile to Introduce More-Flexible Contract Terms for Customers (Nov. 7, 2007) *available at* http://www.t-

Nextel,[5] and AT&T[6] along with Verizon Wireless[7] have announced various policies with regard to prorating ETFs on consumer contracts for post-paid wireless service. These four nationwide carriers along with Alltel have independently instituted policies that give customers the ability to change certain elements of their contracts without requiring a contract extension.[8] These steps will make it easier for consumers to weigh the competitive offerings from numerous carriers and, if warranted, switch from one provider to another. It is no wonder that consumers have widely adopted wireless services to the extent that there are now estimated to be more than 250 million wireless customers in the United States.[9]

The wireless services industry today offers a wide range of terms for services, some with long-term contracts, some with no contracts at all, and practically all terms in

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mobile.com/company/PressReleases_Article.aspx?assetName=Prs_Prs_20071107&title=T-Mobile%20to%20Introduce%20More-Flexible%20Contract%20Terms%20for%20Customers (last accessed Nov. 30, 2007).

[5] Press Release, Sprint Nextel Corporation, Sprint Announces New Programs to Deliver Better Customer Experience (Nov. 7, 2007) *available at* http://newsreleases.sprint.com/phoenix.zhtml?c=127149&p=irol-newsArticle_newsroom&ID=1074436&highlight=handset (last accessed Nov. 30, 2007).

[6] Press Release, AT&T, AT&T Adds Two More Customer-Friendly Policies (Oct. 16, 2007) *available at* http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=24559 (last accessed Dec. 10, 2007).

[7] Press Release, Verizon Wireless, Verizon Wireless Expands the 'Worry-Free Wireless Guarantee' It Pioneered (Nov. 16, 2006) *available at* http://news.vzw.com/news/2006/11/pr2006-11-16e.html (last accessed Dec. 10, 2007).

[8] *See e.g.*, All 4 U, Alltel.com *available at* http://www.alltel.com/wps/portal/AlltelPublic/c1/04_SB8K8xLLM9MSSzPy8xBz9CP0os3hnP2-DoCBDAwN_HxcnAyNLZ0PLIE9DIN9MPxykA0mFu3eokYFRgFOwWZi7i5GBgQFE3gAHcDTQ9_PIz03Vj9SPMsdpj7uJfmROanpicqV-QXZ2mnO6oiIAUfiTyw!!/dl2/d1/L0lJSklna21BL0lKakFBTXlBQkVSQ0pBISEvWUZOQTFOSTUwLTVGd0EhIS83X0NOSzBSUjEwME9MREIwMjlDMTlSSTExMEc0L0lfX19fMQ!!/?WCM_PORTLET=PC_7_CNK0RR100OLDB029C19RI110G4_WCM&WCM_GLOBAL_CONTEXT=/wps/wcm/connect/Alltel/alltel.com/home/all4u/dall4u (last accessed Dec. 3, 2007).

[9] See www.ctia.org, accessed on November 17, 2007. This estimate represents more than 82% of the U.S. population estimated at 303 million (See www.census.gov, accessed November 17, 2007) including babies, toddlers, and others who would be unlikely to use wireless services.

between.[10] Virtually every carrier, either directly or through affiliates, offers plans without early termination fees.[11]

There is no credible evidence that the wireless services industry is not competitive. The AARP Report suggests that one form of transactions costs, switching costs, make wireless services less competitive.[12] But the AARP Report does not measure all ETFs, or all switching costs, or all transactions costs for the wireless industry, much less does the report demonstrate that these costs render the wireless industry non-competitive. Transactions costs are present in many if not all markets but do not by themselves render a market non-competitive. Transactions costs help define the boundaries of firms[13] and limit the most efficient—but not necessarily all efficient—allocation of resources in a market.[14]

As the Commission has consistently found, the wireless industry is competitive:

> 2. In this report the Commission concludes that there is effective competition in the CMRS marketplace. Among the indicators of market structure that support this conclusion, 98 percent of the total U.S. population lives in counties with access to three or more different operators offering mobile telephone service, slightly higher than in the previous year, and up from 88 percent in 2000, the first year for which these statistics were kept. The percentage of the U.S. population living in counties with access to four or more different mobile telephone operators is also slightly higher than in the previous year. …
> 3. With respect to carrier conduct, the record indicates that competitive pressure continues to drive carriers to introduce innovative pricing plans and service offerings, and to match the pricing and service innovations introduced by rival carriers. Price rivalry is evidenced by the introduction of "mobile to anyone" calling options, and by the proliferation of a variety of prepaid plans, or distinct prepaid brands (such as "Boost Mobile"), targeted at previously untapped segments of the market. …
> 4. Consumers continue to pressure carriers to compete on price and other terms and conditions of service by freely switching providers in response to differences in the cost and quality of service. Monthly churn rates averaged about 1.5 to 3.0 percent per month in the past year. In addition, the implementation of local number portability ("LNP")

[10] See Furchtgott-Roth Declaration at Appendix B for a summary as of December 2005. See the web site of any carrier for offerings today.
[11] See Furchtgott-Roth Declaration at 14 and Appendix B.
[12] AARP Report at 2, 15-16.
[13] R. Coase, "The Nature of the Firm," *Economica*, Vol. 4, No. 16, November 1937 pp. 386-405.
[14] R. Coase, "The Problem of Social Cost," *Journal of Law and Economics*, Vol. 3, No. 1 pp. 1-44, 1960.

> beginning in November 2003 has lowered consumer switching costs by enabling wireless subscribers to keep their phone numbers when changing wireless providers.
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> 5. Indicators of market performance show that competition between wireless carriers continues to yield significant benefits to consumers. … Some customer surveys also indicate an improvement in the quality of mobile telephone service in the past year. For example, the J.D. Power and Associates 2006 Wireless Call Quality Study found that the overall rate of customers experiencing a wireless call quality problem declined for a second consecutive year, with reported problems per 100 calls reaching the lowest level since the inaugural study in 2003.[15]

The position taken in the AARP Report[16] that the wireless industry is not competitive and fraught with anti-consumer behavior is at odds with the position taken in all of the FCC's annual reports on competition in the wireless industry and at odds with every federal review of a merger in the wireless industry conducted by the Department of Justice and the Commission, all of which have consistently found the industry to be competitive.

III. Consumers have many places to seek independent views on selection of wireless services

The AARP Report not only claims that the wireless industry is uncompetitive, but it further claims that the American consumer is left without complete and independent information in selecting a wireless service particularly with respect to switching and other transactions costs:

> The FCC's annual report also mentions various sources of third-party information, such as the publication, *Consumer Reports*, to suggest that consumers have sufficient readily available information to find the wireless service that best meets their needs. However, even the most reputable of these sources lacks some key types of information that would help consumers to choose the most appropriate wireless carrier.[17] (footnotes omitted)

The AARP Report is left to assert, unpersuasively, that the FCC annual reports are individually and collectively inaccurate in finding that consumers have sources of information in selecting wireless services and that consumer publications such as

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[15] FCC, *Eleventh Annual Report and Analysis of the Competitive Market Conditions With Respect to Commercial Mobile Services*, 2006, at paragraphs 2 -5.

[16] AARP Report at 13-15.

[17] AARP Report at 14.

Consumer Reports and J.D. Power and Associates are particularly inadequate in informing consumers about the quality and costs of wireless services.[18]

Consumers have many places to find comparative information about wireless services. In addition to the sources listed in the FCC annual reports, consumers can turn to any of thousands of independent retailers around the country who sell multiple lines of wireless service. Wireless carriers sell their services both through their own branded outlets as well as through independent outlets. These include shops ranging in size from small store fronts to the largest box-shaped discount super stores, and collectively these independent outlets account for a large proportion of sales of wireless services. With multiple carrier offerings, these independent outlets have no predictable reason to steer customers to one carrier versus another.[19] Moreover, to the extent independent retail outlets are compensated on transactions, they would have an incentive to encourage, rather than discourage, consumers to engage in new transactions including switching.

Consumers also have endless sources of online comparative information about wireless services. [20] Consumer Search has a review of 15 different web-based sites that compare wireless services, and its list is not comprehensive.[21] Web sites also give advice on shopping for cell phones including the AARP site "Shopping for Cell Phones."[22] Four keywords—consumer guide wireless services—yield 6.35 million citations on Google's search engine.[23] The AARP Report complains that there is little geographic granularity in

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[18] AARP Report at 14-15.
[19] See, e.g., Best Buy marketing materials, available at http://www.bestbuy.com/site/olspage.jsp?id=abcat0801000&type=category (last accessed Dec. 10, 2007).
[20] See Furchtgott-Roth at 8-9.
[21] See http://www.consumersearch.com/www/electronics/cell-phone-plans/reviews.html, accessed November 14, 2007.
[22] Available at http://www.aarp.org/money/wise_consumer/telephones/a2002-10-04-UtilitiesCellPhones.html (last accessed Nov. 14, 2007).
[23] http://www.google.com (last accessed November 14, 2007).

the Consumer Reports reviews of web services,[24] but adding a geographic delimiter to the Google search, such as a state or a city, still yields hundreds of thousands of citations.[25] Of course, not all of these web pages are necessarily helpful, but the sheer number demonstrates that consumers are not selecting wireless services in an information vacuum. For example, some web sites compare wireless services in great detail at the zip code level.[26] Given that there are more than 250 million wireless subscribers and wireless services generate tens of billions of dollars in annual revenue, the wealth of consumer information is not surprising.

IV. There is no evidence that consumer switching of wireless services in America is suppressed

Most of the report presented by AARP is based on the undocumented assumption that consumer switching of wireless services in America is suppressed.[27] Yet switching wireless services is common in America. Recent market reports indicate an average monthly churn across wireless service providers of 1.8% which corresponds to an annual rate of 20%.[28] With more than 250 million subscribers nationwide, approximately 50 million wireless subscribers will switch from one carrier to another in 2007.[29] For these Americans, switching wireless service in 2007 is not a theoretically impossible event; it is a switch that they have actually made. Some of the individuals who switch in 2007, and many who did not, will be among the approximately 50 million subscribers who will switch carriers in 2008. These are hardly rare events. Both prepaid and postpaid

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[24] AARP Report at 14-15.
[25] For example, the terms—Consumer guide wireless services Wyoming—yielded 556,000 citations (search conducted November 14, 2007).
[26] See., e.g., www.myrateplan.com.
[27] See AARP Report at 2.
[28] See, e.g., Campbell, Glen, et al., *U.S. Wireless Matrix 2Q2007*, Merrill Lynch, Aug. 29, 2007, at Table 8.
[29] Ibid., at Table 5.

customers leave their service providers. Moreover, many consumers, quite likely a similar number, switch plans or handsets within their current carrier's offerings.

There is little if any available evidence that the rate at which wireless consumers switch from one carrier to another is suppressed is the United States. Certainly no measure of such suppression is offered in the AARP Report or elsewhere.

Practically every American consumer knows that competing services are available and those competing services encourage switching. Media outlets from newspapers to magazines to radio and television have many wireless service advertisements. Shopping malls and other retail outlets—both large and small—offer wireless services. As the American wireless market is relatively saturated with few individuals not having a wireless phone, most advertising is aimed at encouraging current customers to remain with existing carriers, and enticing other customers to switch services.

V. ETFs are part of the competitive rate structure of many industries

As explained elsewhere, ETFs are a common part of the competitive rate structure of many industries in the United States.[30] The purposes of ETFs include: better information for forecasting demand for services with variable demand; recovery of high acquisition costs; recovery of fixed equipment costs; and any number of other reasons commonly found in competitive markets.[31]

A brief visit to the AARP web site reveals many services offered through AARP with higher fee structures for shorter-term commitments, an implicit form of ETF.[32] For example, AARP offers airline reservations through its web site with specific guidance

[30] Furchtgott-Roth Declaration at 21-24.
[31] Ibid.
[32] See www.aarp.org.

that "changes, requested by you, will require payment of any applicable penalties and/or fees."[33] In addition, there can be a wide range of fees and charges that apply to changes and cancellations in hotel and automobile reservations.[34]

Other services offered through the AARP web site have early termination fees. For example, AARP offers internet access services through a link to Earthlink. At Earthlink, quite reasonably, some services have early termination fees.[35] AARP offers these links not because the organization believes that Earthlink and other companies linked to the AARP web site are anticompetitive and are manipulating switching costs to harm consumers. Just the opposite: AARP offers these links because it reasonably believes that these companies offer good value to AARP members with service that have fee structures that include early termination fees.

VI. The AARP Report's switching theory with respect to ETFs does not match the U.S. wireless industry

As the name implies, "transactions costs" are costs associated with preparing and executing a transaction. But wireless consumers have many transactions that do not involve ETFs and many transactions that are not related to switching between carriers.

The AARP Report focuses on the theory of "switching costs"[36]—one form of transactions costs. Switching costs pertain only to those transactions subsequent to an initial purchase. But, as shown below, the transactions costs identified by the AARP Report are not necessarily associated with customers switching from one carrier to

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[33] See http://www.travelocity.com/AARP/FAQs/1,5265,AARP%7Cnone%7CEN%7C%7Cchangereservations,00.html#1, accessed November 18, 2007.

[34] See http://www.travelocity.com/AARP/FAQs/1,5265,AARP%7Cnone%7CEN%7C%7Cpayments,00.html#3, accessed November 18, 2007.

[35] See, for example, http://www.earthlink.net/dialup/#legal, accessed November 18, 2007.

[36] For the discussion of switching cost theory, see AARP Report at 2.

another, and among these, ETFs are not likely to be large.[37] Moreover, governmental restrictions on wireless contract terms—even if it can be shown that specific contract terms are harmful—may do more harm than good.[38]

To support its assertion that ETFs impede competition for retail wireless services, the AARP Report relies on the economic theory of switching costs,[39] even though those costs are only part of total transactions costs. Under switching theory, consumers face different prices in different time periods. At the time of the initial purchase of a service, consumers face an attractive price p^1. At subsequent time periods, according to switching theory, consumers face a different and higher price p^2.[40] Consumers pay the higher price p^2 because to switch to a different service provider, consumers would be forced to pay an additional switching price p^s, presumably including ETFs, for a total of $p^2 + p^s$ to switch.

But there are many problems in associating this basic form of the theory of switching costs to retail wireless services including the following:

- As discussed above, all consumers face multiple wireless carriers and multiple service offerings including many that are prepaid or hybrid services without time commitments;
- For prepaid and hybrid services, the switching costs are small if any, but none is related to ETFs;

[37] For the vast majority of customers who honor the terms of their contract, there are no ETFs; for customers who seek to change the term of their service contract by shortening the agreed-to term, many wireless carriers have introduced prorated ETFs. Since the filing of the Furchtgott Declaration last year, several major carriers have begun offering prorated ETFs. As noted in the Furchtgott Declaration (at 35-36), prorating ETFs does not necessarily enhance consumer welfare and certainly is not an area of reasonable government regulation.
[38] "The problem which we face in dealing with actions which have harmful effects is not simply one of restraining those responsible for them. What has to be decided is whether the gain from preventing the harm is greater than the loss which would be suffered elsewhere as a result of stopping the action which produces the harm." Coase, 1960, at 11.
[39] See AARP Report at 2 – 13.
[40] See AARP Report at 12-13.

- Competition and improvements in technology have led to prices for wireless services consistently falling over time; thus, typically, p^2 is less than p^1, contrary to the usual theory of switching costs in which p^2 is greater than p^1.[41]
- Consumers evaluate the wide range of service offerings, and many choose service plans with ETFs rather than plans without ETFs. Consumers have choices and are rational in their choices.

VII. A proper analysis using the AARP Report's switching cost framework could reasonably conclude that ETFs facilitate switching

The AARP Report merely speculates without empirical evidence that ETFs raise switching costs and thereby discourage switching. But the opposite may hold. Indeed, it could equally well be argued that ETFs may lower overall switching and transactions costs and thereby encourage switching.

If wireless carriers were engaged in an anticompetitive cartel to maintain existing customers and to discourage customer switching, the wireless services market would look entirely different than it does to the American consumer today. There would likely be little advertising other than advertising targeted to existing customers such as through billing inserts. Instead, the American consumer is bombarded with advertising from the wireless industry, practically all of it encouraging customers to switch brands.

Further, if there were such a cartel as described above, wireless carriers would not provide "free phones" with new service agreements. The AARP Report complains that "free" phones associated with term contracts reduces consumer incentives to switch services.[42] The opposite is likely to be case. An offer of a "free" phone by carrier A is

[41] *See* AARP Report at 12-13.
[42] AARP Report at 5-7.

an inducement for customers of carrier B to switch to carrier A, a sign that the industry is competitive.

The presence of ETFs reduces handset costs paid by consumers.[43] If consumers had no option but to pay the full price for a handset that is an ongoing obligation regardless of whether the consumer continues to use a handset, consumers might be less likely than today to switch to new handsets.[44] It is precisely the availability of ETFs that reduces the initial price of handsets that enables consumers more freely to switch to new handsets and new services. Rather than a cost that inhibits switching, ETFs are as likely to be an incentive to switch.

If carriers were trying to exploit switching costs to discourage switching, they would either raise service rates in period 2, p^2, to be greater than service prices in period 1, p^1, or at the very least keep p^2 equal to p^1. But the opposite is the case. Observe that in the American wireless industry, unlike the AARP Report's hypothetical world of switching theory, the price in subsequent periods, p^2 for almost all wireless consumers is lower than the initial price, p^1. This outcome, the exact opposite of the typical switching theory presentation, is the result of competition and innovation in the wireless industry. Wireless service prices continue to fall, and the lower rates are offered both to the existing customer base and to new customers.

Indeed, if prices were increasing for wireless services over time except for those under long-term contracts, these contracts would be much less of an issue. Consumers would then want to remain in their contracts as long as possible to gain the benefit of the

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43 *See* Furchtgott-Roth Declaration at 27.

44 This result holds whether the payment is paid in full or on an installment basis and whether the handset is purchased from a carrier or a third party vendor.

bargain. Instead of wireless prices rising, they are falling for all customers, both those with service contracts and those without.

As noted in the AARP Report, most ETFs, if applicable for early termination, are less than $200.[45] Indeed, since the AARP Report was filed, the national wireless carriers have shifted to a prorated ETF, meaning that the ETFs, where applicable, are even lower. As noted *supra* Section II, T-Mobile USA, Sprint Nextel, and AT&T along with Verizon Wireless have announced various policies with regard to prorating ETFs on consumer contracts for post-paid wireless service.[46] These four nationwide carriers along with Alltel have independently instituted policies that give customers the ability to change certain elements of their contracts without requiring a contract extension.[47] Moreover, the vast majority of wireless consumers never pay ETFs because they stay with their rate plan longer than the minimum period or because they use prepaid or hybrid services.[48] In contrast to a small ETF or the no ETF paid by most consumers, the undiscounted retail price of most new sophisticated wireless handsets is substantially more than $200.[49]

ETFs thus create the best of all possible worlds for consumers, *reducing* costs of switching carriers by avoiding the up-front fixed costs of a new handset. Without ETFs, consumers would pay for an initial service price $p^{1\text{ no ETF}}$ plus a handset cost p^{H1} in period

[45] See AARP Report at 18.
[46] See supra Section II and notes 4-8.
[47] *See e.g.*, All 4 U, Alltel.com *available at* http://www.alltel.com/wps/portal/AlltelPublic/c1/04_SB8K8xLLM9MSSzPy8xBz9CP0os3hnP2-DoCBDAwN_HxcnAyNLZ0PLIE9DIN9MPxykA0mFu3eokYFRgFOwWZi7i5GBgQFE3gAHcDTQ9_PIz03Vj9SPMsdpj7uJfmROanpicqV-QXZ2mnO6oiIAUfiTyw!!/dl2/d1/L0lJSklna21BL0lKakFBTXlBQkVSQ0pBISEvWUZOQTFOSTUwLTVGd0EhIS83X0NOSzBSUjEwME9MREIwMjlDMTlSSTExMEc0L0lfX19fMQ!!/?WCM_PORTLET=PC_7_CNK0RR100OLDB029C19RI110G4_WCM&WCM_GLOBAL_CONTEXT=/wps/wcm/connect/Alltel/alltel.com/home/all4u/dall4u (last accessed Dec. 3, 2007).
[48] Furchtgott-Roth Declaration at 34.
[49] For example, the retail price for an iPhone is $399. See http://store.apple.com/1-800-MY-APPLE/WebObjects/AppleStore.woa/wa/RSLID?nnmm=browse&node=home/iphone/iphone, accessed November 18, 2007.

1. In period 2, the consumer would pay the subsequently service price, $p^{2\text{ no ETF}}$ presumably lower than the initial rate as the result of competition and innovation. But if a consumer wanted to switch carriers in the second period, she would have to pay $p^{2\text{ no ETF}}$ plus the cost of a new handset in period 2, p^{H2}. But we have already seen that carriers absorb part of the cost of handsets to the benefit of consumers as a result of ETFs; thus $p^{1\text{ with ETFs}}$ is always lower than $p^{1\text{ no ETF}}$ plus p^{H1}. Thus, a consumer is better off in period 1 with an ETF.

The result in period 2 turns out to be the same: $p^{2\text{ with ETFs}}$ plus p^{ETF} is lower than $p^{2\text{ no ETF}}$ plus p^{H2} for customers who decide to switch and for whom the ETF is less than the price of a new phone. Thus a strong case, certainly stronger than the case presented by the AARP Report, can be made that ETF facilitate consumers who wish to switch services.

VIII. The AARP Report confuses switching costs with other costs and quantifies neither

Many of the examples of supposed switching costs presented in the AARP Report[50] are more accurately described either as consumer benefits or as costs that generally apply to all transactions, not just instances of switching.

A. Examples of switching costs confused in the AARP Report

1. Handset replacement costs[51]

The AARP Report describes both early termination fees and handset replacement costs as switching costs, but the cost of a handset is not a cost uniquely paid by customers switching from one carrier to another. Handset costs are paid by both first-time

[50] For a summary, see AARP Table 1, at 4.
[51] AARP Report at 4 and 18.

subscribers as well as customers switching handsets, either within a carrier's service offerings or to a new carrier.

2. Early termination fees[52]

The AARP Report claims that ETFs are switching costs, but practically every carrier has plans without early termination fees.[53] Thus, consumers have a wide range of choices for wireless services. Some consumers choose plans without ETFs, and others choose plans with ETFs. Those who choose plans with ETFs presumably do so because of preferred prices, terms, and conditions—not because of the unavailability of options without ETFs.

3. Loss of In-Network Pricing[54]

The loss of in-network pricing as presented in the AARP Report is hardly a good example of switching costs. Consumers who switch from carrier A to carrier B may lose the in-network pricing benefits of carrier A but gain the in-network pricing benefits of carrier B. It is not necessarily the case that in-network pricing discourages switching; in some cases, it may encourage switching.

In-network pricing is an important consumer benefit, but few consumers make all calls on network. Even AT&T Mobility, the largest wireless carrier, has fewer than 30% of total wireless subscribers.[55] Moreover, the consumer benefits from receiving discounts on in-network calls are such that government regulators would not want to discourage or eliminate these benefits.

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[52] AARP Report at 4 and 18.
[53] See the Furchtgott-Roth Declaration on the availability of a wide range of plans to the American consumer.
[54] AARP Report at 4 and 19.
[55] UBS Investment Research, *US Wireless 411*, September 18, 2007, at 22.

4. Preferred Handset Opportunity Costs[56]

The AARP Report claims that preferred handset opportunity costs are a switching cost. This is not necessarily an issue of switching costs between carriers, and quite likely not an issue of switching costs at all. If a first-time consumer prefers handset 1 and purchases a plan with handset 1 from carrier A, there is no switching cost issue. If the consumer subsequently decides that she or he prefers handset 2, there may or may not be costs associated with switching to handset 2. Many handsets are available from more than one carrier, and the cost of switching within a carrier would depend on the carrier's policy and the terms of the customer's service agreement with the carrier.

Even if handset 2 were only available from a different carrier, say carrier B, there may be no costs to switching. Many consumers have service beyond their contract expiration date and thus would have no costs in switching to handset 2 from carrier B. Curiously, the AARP Report focuses on the Apple iPhone as its example of preferred handset opportunity costs.[57] That handset has an unusual, even unique, business model at a price much greater than ETFs.

5. Loss of exclusive content[58]

The AARP Report incorrectly claims that loss of exclusive content is a switching cost. Much as with in-network pricing, consumers switching from carrier A to carrier B lose the exclusive content of carrier A but gain the exclusive content of carrier B. It is not necessarily the case that exclusive content discourages switching; in some cases, it may encourage switching.

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[56] AARP Report at 4 and 19.
[57] AARP Report at 19.
[58] AARP Report at 4 and 19-20.

6. Informational switching costs[59]

The AARP Report incorrectly claims that information switching costs are a switching cost between carriers. The informational switching costs listed by the AARP Report—search and evaluation costs, uncertainty costs, set-up and learning costs—are general transaction costs. These apply to all customers' transactions: first-time customers, customers switching service plans within the same carrier, and customers switching between carriers.

B. The AARP Report does not quantify various transactions costs and thus fails to distinguish switching costs

Even if, for argument's sake, some of the costs identified by the AARP Report were truly limited to switching costs, the AARP Report fails to quantify the switching costs between carriers relative to other transactions costs. The relative magnitude of switching to transactions costs is important because transactions costs apply to all transactions while the switching costs between carriers apply only when customers switch from one carrier to another. The AARP Report alleges that switching between carriers is suppressed because of high switching costs. That allegation is plausible only if the costs of switching from one carrier to another are large relative to staying with a current service *or* to switching services within the current carrier. As seen above, many of the costs that the AARP Report identifies as switching costs are not unique to switching between carriers but also apply to switching service within one carrier or to a new customer entering a market. This is especially true given the widespread availability of "free" or deeply discounted handsets available to customers activating or renewing a service agreement with the carrier of their choice.

[59] AARP Report at 4.

For example, at its web site on choosing a wireless service, *Consumer Reports* discusses many factors before mentioning ETFs.[60] ETFs are not a large part of the cost of wireless service and not likely a substantial inhibitor to customers switching services.[61] *Consumer Reports*, under the heading "Bid your old carrier goodbye," states the obvious: "Much as we hate to say it, coughing up a penalty of, say, $150 to get out of the deal might be no worse than paying $50 month after month for service you can barely tolerate."[62]

IX. The AARP Report's discussion of "Carrier Strategies for Managing and Increasing Switching Costs" Is Inaccurate and Misleading

In Section D of its report, AARP asserts that wireless carriers have "strategies for managing and increasing switching costs."[63] These "strategies," according to the AARP Report, are used for "retaining customers and reducing competition."[64] The AARP Report claims "these factors, which are discussed below and listed in Table 2, include 1) switching and alternative experience, 2) provider heterogeneity, and 3) product and market complexity."[65]

As it turns out, many of the factors identified by the AARP Report are not manipulated strategies at all but rather are the reflections of the conditions in competitive markets over which wireless carriers have no control. Moreover, where carriers have choices, activities are for customer-retention, hardly an anti-competitive activity. In any

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[60] *Consumer Reports*, "Best Cell Service," accessed November 14, 2007 at http://www.consumerreports.org/cro/electronics-computers/phones-mobile-devices/phones/cell-phone-service-providers/cell-phone-service-1-07/overview/0107_serve_ov_1.htm.
[61] See generally, Furchtgott-Roth Declaration, May 2006.
[62] *Consumer Reports*, "Best Cell Service," *supra* note 60.
[63] AARP Report at 5.
[64] AARP Report at 5. Indeed, in introducing this section, AARP does not mention or emphasize anticompetitive behavior but rather focuses on the "switching cost-based retention" and related factors identified by academics.
[65] AARP Report at 5.

event, practically all of the activities listed in Section D of the AARP Report are valuable to consumers, and the federal government would not want to regulate these activities.

A. Wireless services are competitive

Wireless operators compete with one another for customers. If a wireless carrier A harmed consumers by artificially increasing perceptions of product complexity or heightening perceptions of provider differences or reducing switching or alternative experiences, then carrier B (or carriers B, C, D, E, etc.) should be able to gain customers by not engaging in the same activities as carrier A. Section D of the AARP Report is filled with abstract allegations of allegedly anti-competitive behavior by wireless carriers.[66] If even one of the allegations were correct, it should have created competitive opportunities for other carriers. The observation of sustained practices in a competitive industry such as the wireless industry should lead to the inference that these practices are consistent with competition, not the anti-competitive inference that AARP appears to make in Section D of its report.

B. Consumers are rational and self-interested

Part of the underpinnings of economic consumer theory is that consumers are rational, self-interested, and capable of making rational choices based on prices presented to them. From these and other reasonable assumptions, economists infer much about consumer choices based on the revealed preferences of consumer behavior.[67] But much of Section D of the AARP Report suggests that are substantial bounds to consumer rationality particularly for consumers facing complex price structures.[68] The information

[66] AARP Report at 5 – 12.
[67] Paul Samuelson, "A Note on the Pure Theory of Consumers' Behaviour." *Economica*, February 1938, at 61-71.
[68] See generally AARP Report at 10-12.

cited in support of these suggestions is largely based on surveys and other information that does not provide conclusive evidence that wireless consumers have limited rationality or offerings with which they cannot cope.[69]

There are several possible interpretations of the AARP Report's comments about consumer rationality, none of which is consistent with wireless carriers having anticompetitive offerings. For example, if consumers cannot process complex information, it is not obvious why complex offerings are profitable, much less anticompetitive. Moreover, for all consumers, there are options of less complex offerings: simpler handsets or prepaid plans. Many consumers choose simpler options; others do not. For those who choose complex offerings, it is difficult to conclude, as the AARP Report appears to claim, that these consumers are worse off.

C. Many of the factors identified in the AARP Report are reflections of technology in a competitive market

The AARP Report complains that wireless services and handsets are too complex.[70] But the complexity of handsets reflects both technology[71] and consumer

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"Product complexity describes the extent to which consumers view a product as difficult to understand or use. Consumers typically perceive a product as complex if it offers multiple options and features, requires a number of steps to use, or is associated with complicated pricing structures or other multidimensional product attributes (e.g., service quality, customer service etc.). To the extent that a product has these characteristics, consumers have to devote more time and effort and generally incur greater "thinking costs" to gather, process, and compare information. The greater number of decisions associated with complex products also reduces consumer effectiveness in decision making (especially older adults) and inherently increases consumer uncertainty about the benefits and consequences of making a particular purchase. Past research has found that consumers in complex decision environments tend to respond to this uncertainty by choosing the status quo and remaining with their existing provider: they choose not to choose." (footnotes omitted) AARP Report at 10-11.

[69] See, e.g., AARP Report at footnotes 52 -56.

[70] "However, studies also indicate that adding more features can make a product more difficult to use and decrease consumers' satisfaction with it. This phenomenon, known as "feature fatigue," may be of some concern to providers who fear that dissatisfied consumers will switch to another provider in the future, but is less of an issue for providers in markets characterized by high switching costs and locked-in consumers." (footnotes omitted) AARP Report at 8.
"While many of these features by themselves may be perceived as useful, a cell phone crowded with too many features can be overwhelming and difficult to use." AARP Report at 9.

demand. If consumers preferred simpler devices, carriers in a competitive market would offer them.[72] Consumer electronic products from computers to refrigerators to cars are more complex and sophisticated today than just a few years ago. Complexity is a reflection of available technology, not to anticompetitive behavior of vendors.

D. Several of the factors mentioned in the AARP Report do not heighten switching costs

Some of the factors listed in Table 2[73] of the AARP Report may encourage, rather than discourage switching. For example, brief penalty-free trial periods,[74] claims of superior network quality,[75] proliferation of features,[76] and service plan details[77]—not to mention ubiquitous competitive advertising—almost certainly entice customers to consider the offerings of competing networks. On the other hand, complex, multi-dimensional pricing,[78] lack of unit pricing,[79] line-item charges,[80] and misleading descriptors[81]—to the extent these AARP Report characterizations are accurate[82]—would more likely repel consumers rather attract them to their current carriers. Thus, many of

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"Product complexity and consumer uncertainty abound in the cell phone industry. Surveys and reports in the media suggest that consumers have difficulty understanding and/or using many aspects of cell phone service—from pricing policies, service contracts, and monthly bills to service coverage maps and handsets." AARP Report at 11.

[71] "According to one estimate, today's cell phones are capable of accessing roughly 500,000 independent features and functions, compared to cell phones in 1995, which offered about 50 different features." (footnotes omitted). AARP Report at 9.

[72] In fact, simpler devices are available to wireless consumers who desire less complex handsets. Thus, the Jitterbug, Firefly, and the new Verizon Wireless Coupe™, offer consumers devices with fewer features or more streamlined, simpler form factors. See http://www.jitterbug.com/; http://www.fireflymobile.com/; and http://news.vzw.com/news/2007/09/pr2007-09-04a.html.

[73] AARP Report at 6.

[74] AARP Report at 6 and 8.

[75] AARP Report at 6 and 9.

[76] AARP Report at 6 and 9-10.

[77] AARP Report at 6 and 10.

[78] AARP Report at 6 and 11.

[79] AARP Report at 6 and 12.

[80] AARP Report at 6 and 12.

[81] AARP Report at 6 and 12.

[82] I have serious reservations about the accuracy of the AARP characterizations.

the factors listed in Table 2 do not heighten switching costs and may actually reduce them.

E. Some of the descriptions of the wireless industry in Section D of the AARP Report are inaccurate

Some of the descriptions in section D of the AARP Report are inaccurate. For example, consider two-year contracts:

> • *Two-Year Contracts*—Each of the four national wireless carriers—AT&T Mobility (formerly Cingular Wireless), Verizon Wireless, Sprint Nextel, and T-Mobile USA—promote, emphasize, and, in many instances, require two-year service contracts for all of their monthly service plans.[83]

This statement simply is not true. AT&T offers monthly hybrid service plans without any long-term commitments.[84] The Sprint subsidiary, Boost Mobile does as well through Boost Premium, directly described at the Sprint website.[85] Many other carriers offer hybrid plans without long-term contractual commitments, and comparisons of these plans are available online.[86] In addition, both national wireless companies and smaller resellers market and distribute prepaid phones without contracts. These phones can be purchased online, at department stores, through thousands of wireless shops, or through tens of thousands of convenience stores and gas stations around the country.

Moreover, the AARP Report inappropriately focuses on postpaid term contract plans to the exclusion of hybrid and prepaid plans. Demand for prepaid and hybrid plans is growing.[87] Since the beginning of 2005, prepaid subscribers have nearly doubled and

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[83] AARP Report at 5.
[84] See description of the GoPhone at http://www.wireless.att.com/cell-phone-service/go-phones/pyp-plans-phones.jsp?WT.svl=title&source=IC9301j13RWn3800&WT.mc_id=IC9301j13RWn3800&ContentId=900285&_requestid=85703.
[85] See http://www.sprint.com/en/boostlanding/, accessed November 11, 2007.
[86] See http://www.cellguru.net/prepaid_hybrid_compare.htm, accessed November 14, 2007. See also http://www.bestbuy.com/site/olspage.jsp?id=abcat0801002&type=category, accessed November 19, 2007.
[87] See e.g., "Prepaid drives accelerating growth in gross adds," UBS Investment Research, *US Wireless 411*, September 18, 2007, at 1.

now account for approximately 15% of total wireless subscribers[88] and now account for well over 20% of gross additions to the wireless industry.[89]

As another example, in Table 2, the AARP Report refers to the marketing of "handsets and service as a bundled deal that requires a long-term contract and includes a free phone."[90] Practically every carrier and many resellers have prepaid plans that bundle handsets and service without long-term contracts.

F. Steps to encourage retention of customers usually benefit customers in a competitive market

The AARP Report implies that attempting to retain customers harms customers and competition. It would be difficult to find a firm in any industry, competitive or not, that does not seek to retain customers. Satisfying and retaining customers are hardly anticompetitive activities. And efforts to retain customers ultimately depend on satisfying the customer. Several of the factors listed in Table 2 of the AARP Report clearly benefit customers: "Free" phones with long-term contracts, penalty-free trial periods, discounts on handset upgrades, differentiation on features, and detailed service plans. In a competitive market, firms have extraordinary incentives to help consumers, not to harm them. Ultimately, Section D of the AARP Report fails to demonstrate that consumers have been harmed.

G. The Commission would not likely want to regulate any of the activities in Section D of the AARP Report

The AARP Report labels its Table 2 as "Wireless Carrier Strategies to Manage Consumer Switching Costs" as if the table contained a list of sinister plots to manipulate

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[88] See, e.g., Campbell, Glen, et al., *U.S. Wireless Matrix 2Q2007*, Merrill Lynch, Aug. 29, 2007, at Table 10.
[89] CTIA - The Wireless Association®, "CTIA's Wireless Industry Indices: Year End 2006 Results," released May 2007, Table 54.
[90] AARP Report at 6.

consumers. Table 2 actual contains little information about carrier strategies of any sort, much less sinister ones.

Even if the factors listed in the table were accurately described—which, as noted above, they are not—these factors are not areas for Commission regulation. The Commission is hardly in a position to regulate many of the factors listed in Table 2 including the following: prohibit contracts of certain lengths for wireless services; prohibit bundling of free phones to consumers or to regulate conditions for free phones; prohibit free trial periods or regulate their length; prohibit discounts on phones or services to existing customers; provide additional handset features to customers; provide consumers with information on service plans; or set prices based on types of minutes used.

The AARP Report fails to demonstrate that any of the factors listed in Table 2 is part of a corporate strategy either to increase switching costs or to harm consumers. If consumers were actually harmed by any one firm with respect to any one of the factors listed in Table 2, a competing company could and would offer a package of services that would attract more consumers. Absent clearer findings of anticompetitive behavior or harms to consumers, it is difficult to see how Section D of the AARP Report could be a foundation for regulation of the wireless industry.

X. The AARP Report's focus on switching costs is not derived from the Telecommunications Act of 1996

Despite the AARP Report's effort to frame switching costs in the context of the Telecommunications Act of 1996, switching costs are not a focus of the Act. The AARP Report appears to accurately quote Jack Fields, one of initial sponsors of the Telecommunications Act of 1996:

> [Congress] is decompartmentalizing segments of the telecommunications industry, opening the floodgates of competition through deregulation, and most importantly, giving consumers choice . . . and from these choices, the benefits of competition flow to all of us as consumers—new and better technologies, new applications for existing technologies, and most importantly . . . lower consumer price.[91]

Note that in Mr. Fields' statement, as quoted by the AARP Report, the word "switch," or a variation of it, is never mentioned. Instead, Mr. Fields focuses on "deregulation" and "choice." Yet the AARP Report appears to incorrectly use Mr. Fields' statement as a foundation for the centrality of "switching" to competition as it states in the sentence immediately following the Fields' quote:

> A key assumption underlying Congress's support for competitive markets is that consumers will switch freely among service providers in response to differences in the price and quality of service.[92]

The AARP Report's statement does not follow from Mr. Fields' statement, nor from the Telecommunications Act of 1996. Switching service providers is not a key assumption of the Act,[93] and Congressional support for competition is not qualified only to those circumstances described by the AARP Report. The ability of consumers to change allocations of resources is a reflection of the flexibility consumers have in making decisions, but is not a reflection of the state of competition in the market for purchased services.[94]

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[91] See 142 *Cong. Rec.*, H1149. (daily ed. Feb. 1, 1996) (statement of Rep. J. Fields), as cited in AARP Report at 1.

[92] AARP Report at 1.

[93] The word "switch" appears 17 times in the Communications Act of 1934, but only once in the context of consumers switching any form of service. That instance has to do with consumers switching telecommunications services in the context of local number portability.

[94] Thus, for example, the simple observation that a Soviet citizen 30 years ago could switch between reading *Pravda* and *Isvestia* and one would change price or quality provides no information about whether *Pravda* and *Isvestia* actually competed with each other at the time, much less whether the broader Soviet newspaper market was competitive. One can have switching in markets that are not at all competitive. Conversely, one might see markets with substantial competition, particularly rivalry, but with little if any consumer switching. See W. J. Baumal, J. C. Panzar, and R. D. Willig, *Contestable Markets and the Theory of Industry Structure*, Harcourt Brace Jovanovich, Inc., New York, 1982.

It is ironic that the Telecommunications Act of 1996, which is framed in deregulation in its preamble,[95] would be a pretext for the FCC to expand regulation for any purpose, including ETFs, a specific term and concept unmentioned in the Communications Act. In the 11 years since the passage of the Act, the Commission has not found it necessary to begin regulating ETFs.[96] Indeed, the AARP Report with its call for the Commission to regulate the rate structure of wireless services is the antithesis of the deregulatory framework of the Telecommunications Act of 1996.

XI. The AARP Report's conclusions and policy recommendations have no foundation and are unreliable

The AARP Report presents conclusions and policy recommendations on the basis of its theories about switching costs.[97] As discussed above those theories are not reliable in general and are not reflective of the competitive wireless industry. Thus, the conclusions and policy recommendations are not reliable. They do not provide a foundation for the Commission to regulate further the wireless industry, particularly not contractual terms and conditions between private parties.

In the introduction to its report, AARP calls on a market ideal:

> "Given the essential role of wireless phone service in today's society, consumers need and deserve a marketplace that offers a choice of high quality products at stable, reasonable prices. They need and deserve a marketplace that spurs innovation and functions without fraud, deception, and unfair business practices."[98]

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[95] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).
[96] Nor did Congress when it passed the Telecommunications Act of 1996, even though ETFs were a well-established feature of wireless contracts at that time.
[97] AARP Report at 15-17.
[98] AARP Report at 1.

The ideal that the AARP Report describes already exists: it is the American wireless services market.

Harold Furchtgott-Roth

Washington, DC

December 10, 2007