

An Economic Analysis of the Proposed Comcast/Time Warner Cable Merger

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Comcast has proposed acquiring Time Warner Cable (TWC) for around \$45 billion.¹ Despite the transaction being a horizontal merger, it does not raise traditional horizontal issues: although the firms operate in the same product markets, they are in different geographic market because their service territories do not overlap. This point has not been controversial. Instead, opposition to the merger has focused primarily on vertical concerns—how the merger may affect upstream and downstream products.

Even so, for antitrust agencies the basic question remains the same as for all mergers: do the pro-competitive, efficiency-enhancing effects outweigh any potential anticompetitive harms of the merger? The Department of Justice must decide whether to challenge the merger on the grounds that the potential loss of competition in some relevant market is greater than the pro-competitive efficiencies, while the FCC must decide whether to affirmatively permit the merger to happen, partly on antitrust grounds and partly on “public interest” criteria. In this paper I explore the possible pro-competitive benefits and anti-competitive harms.

Comcast outlines certain benefits in its public interest statement.² It believes the merger will bring certain cost efficiencies—about \$1.5 billion a year after a few years and a one-time \$400 million savings.³ The benefits to residential consumers depend on how much more quickly Comcast would upgrade TWC’s network than TWC would have and how much consumers value those benefits. The benefits to business customers flow from the presence of a stronger competitor in the market for business services—a market in which Comcast and Time Warner Cable currently have negligible market share. Finally, larger scale may create additional incentives for Comcast to innovate if its larger size allows it to realize higher returns to investments that have high fixed costs.

The possible harms depend on the extent to which a larger Comcast has an increased incentive and ability to discriminate against competing video or broadband content. This question is complicated for three reasons. First, as a profit-maximizing firm, Comcast must balance the benefits of any incentive to discriminate unfairly against incentives to have content available on its platforms. We do not know whether increasing Comcast’s reach without increasing its share of subscribers in any given area would have a bigger effect on its incentive to discriminate or on its desire to increase demand for its product, which mitigates incentives for bad behavior.

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¹ More specifically, Comcast will exchange each of TWC’s outstanding 284.9 million shares for 2.875 Comcast shares. At a price of \$52 per Comcast share (the approximate price as of market close May 1), that offer equals about \$42.5 billion. <http://corporate.comcast.com/news-information/news-feed/time-warner-cable-to-merge-with-comcast-corporation>.

² Comcast Corporation and Time Warner Cable, *Comcast Corp and Time Warner Cable for Consent to Transfer Control of Licenses and Authorizations: Applications and Public Interest Statement*, April 8, 2014.

³ It is not clear how the proposed divestiture of subscribers to Charter affects these estimates.

Second, on the video side a better negotiating position by the distributor may be a consumer benefit rather than a harm given rapidly increasing programming fees. Even if a decreasing rate of increase in programming fees does not necessarily translate into lower consumer prices, the change does not harm consumers.

Some arguments offered against the merger, meanwhile, seem irrelevant. Most importantly is a general “big is bad” so “bigger is worse” argument, but this is not generically true—large firms do some things better and small firms do other things better. Indeed, increased size is an important contributor to the claimed benefits of the merger given the role of economies of scale in high fixed-cost industries.

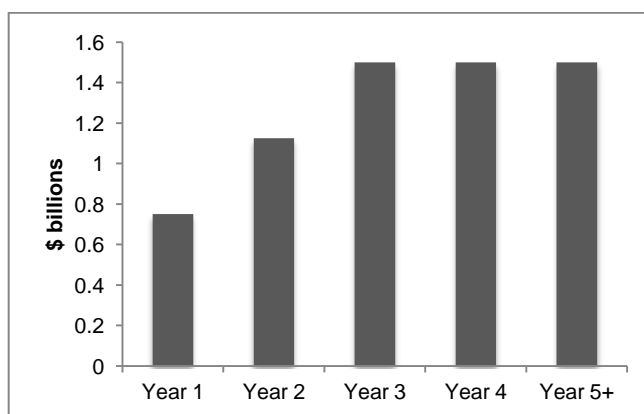
This paper examines in more detail the potential benefits and costs of the merger that antitrust authorities must weigh in deciding whether to approve the deal.

Potential Benefits

Comcast contends that the merger will yield significant efficiencies, mostly related to economies of scale. It explains that these efficiencies will yield benefits to Comcast itself in terms of cost savings, to TWC residential consumers through faster upgrades, to business consumers by creating a viable competitor in that market, and to all consumers through increased innovation from its larger scale. I examine each of these claims in turn.

On the cost side of the ledger, Comcast estimates that the “synergies”—presumably through gains from scale efficiencies—will yield cost savings of \$1.5 billion a year in operating expenses by the third year and continuing into the future, plus short-term “capital expenditure efficiencies” of \$400 million, or about 10 percent of TWC’s operating expenses (Figure 1).⁴ Reducing costs without reducing output is unambiguously a net economic benefit.

Figure 1: Cost Savings From the Merger



Source: Derived from Angelakis (2014).⁵

⁴ Michael J. Angelakis, *Declaration of Michael J. Angelakis In the Matter of Applications of Comcast Corp. and Time Warner Cable Inc. For Consent to Transfer Control of Licenses and Authorizations*, n.d., 3.

⁵ *Ibid.*

Business Customers

Cable companies have, for some years, recognized the business market as potentially lucrative but have remained minor players in that market. By one estimate, Comcast has 20 percent of the small business market and five percent of middle-sized companies.⁶ TWC, meanwhile, had 12 percent of the market for small and mid-sized businesses in 2013.⁷ Neither firm has gained traction in the market for large businesses. One reason for their absence from the market for large businesses—or businesses that have offices across cable company territories—appears to be the costs of aggregating communications services into a single network across territories. Rosston and Topper (2010) explain in their filing for Comcast that the FCC itself has acknowledged “that customers prefer services delivered on a single provider’s network...”⁸

Because neither Comcast nor TWC is an established incumbent in the market to serve businesses, a stronger presence—and, more specifically, a presence with a larger footprint—is likely to yield benefits to these consumers.⁹ Neil Smit, President and CEO of Comcast cable estimates this market to be “about a \$15 billion opportunity.”¹⁰

Residential Customers

Residential consumers—TWC consumers, presumably—will benefit, Comcast says, by accelerated upgrades to TWC’s infrastructure and access to Comcast’s technology and large video-on-demand library. The residential consumer benefits of these actions, therefore, depend on how quickly the upgrades would happen under Comcast ownership relative to TWC, how much consumers value the upgrades, and how much prices change under Comcast relative to changes under TWC.

Time Warner Cable recently announced an accelerated upgrade schedule—a plan tentatively called “TWC Maxx.”¹¹ Comcast acknowledges this upgrade in its Public Interest Statement (PIS), noting that “TWC expects to have completed [its all-digital migration in] only 75 percent of its footprint by the end of 2016,”¹² and explaining that it can complete the upgrade more quickly. However, TWC’s upgrade timeline may shorter than Comcast asserts. The original source material the PIS cites says that TWC will “...roll out these initiatives across 75 percent of our footprint in 2015 and 2016,” not “end of 2016.”¹³ In other words, the difference TWC’s and Comcast’s upgrade timelines may not be as large as Comcast suggests.

⁶ Larry Dignan, “Comcast Counting on Business Services for Cable Growth,” *ZDNet*, April 22, 2014, <http://www.zdnet.com/comcast-counting-on-business-services-for-cable-growth-7000028639/>.

⁷ Gregory L. Rosston and Michael D. Topper, “An Economic Analysis of the Proposed Comcast - Time Warner Cable Transaction,” April 8, 2014, para. 117.

⁸ *Ibid.*, para. 123.

⁹ Rosston and Topper, in their filing for Comcast, discuss business services extensively. *Ibid.*, 44–55.

¹⁰ <http://www.cmcsa.com/secfiling.cfm?filingID=950103-14-1756>

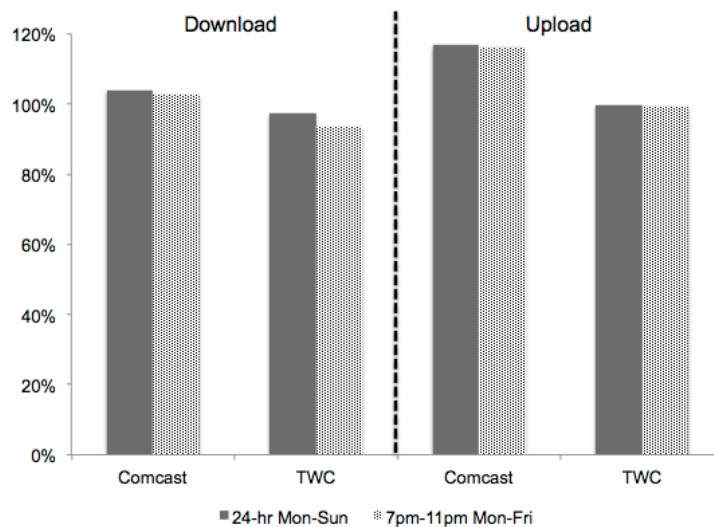
¹¹ Time Warner Cable, *TWC Operational and Financial Plan*, January 30, 2014, http://ir.timewarnercable.com/files/4Q13/TWC_Operational%20and_Financial%20Plan_vFINAL.pdf.

¹² Comcast Corporation and Time Warner Cable, *Comcast Corp and Time Warner Cable for Consent to Transfer Control of Licenses and Authorizations: Applications and Public Interest Statement*, 70.

¹³ Time Warner Cable, *TWC Operational and Financial Plan*, 11.

In addition to the upgrade schedule, the economic benefit also depends on how much consumers value the upgrades.¹⁴ The answer is not clear, at least on the broadband side. Rosston, Savage, and Waldman (2010) found that while consumers were willing to pay quite a bit (about \$80) for a “fast” and reliable connection, they were, on average, only willing to pay an extra few dollars for a “very fast,” reliable connection.¹⁵ Comcast customers appear to have, on average, faster broadband connections than Time Warner Cable customers. According to Ookla’s most recent speedtest results, Comcast customers averaged about 31 Mbps while TWC’s averaged about 23.2 Mbps.¹⁶ However, decreasing marginal benefits to increasing speed mean that it is not clear how much consumers will value this aspect of the upgrade.

Figure 2: Actual Broadband Speeds as a Share of Advertised Speeds, 2012



Source: FCC (2013).¹⁷

Additionally, it is not clear how much the actual broadband user experience currently differs between the two firms. Figure 2 shows that both firms deliver the speeds advertised to their customers, although Comcast performs somewhat better, providing more than promised upload speeds. The two firms appear to provide a similar viewing experience to Netflix subscribers, for example, except for the time during the peering dispute between Comcast and Netflix (Figure 3).

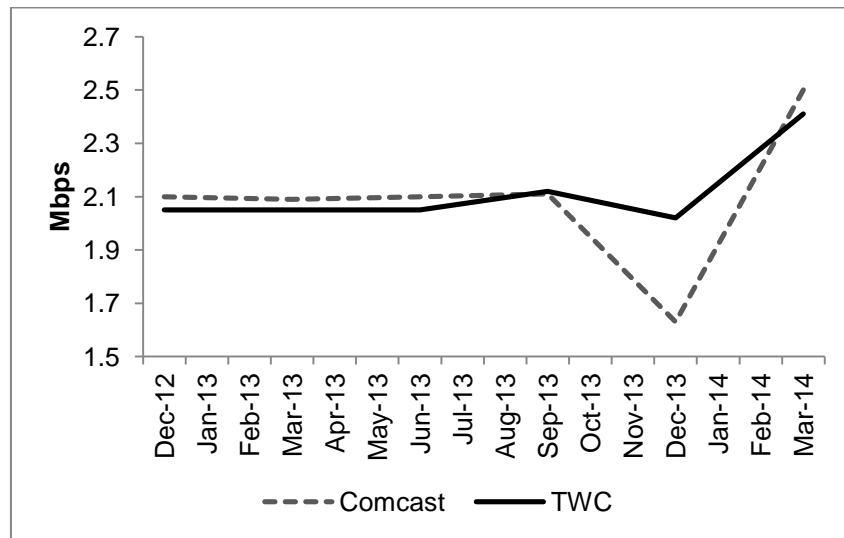
¹⁴ Cost efficiencies of newer technology is also a real benefit, which Comcast has presumably incorporated into its estimate of \$1.5 billion annual cost savings.

¹⁵ Gregory Rosston, Scott Savage, and Donald Waldman, “Household Demand for Broadband Internet Service,” *The B.E. Journal of Economic Analysis and Policy* 10, no. 1 (September 9, 2010).

¹⁶ As of April 17, 2014 <http://explorer.netindex.com/maps#>

¹⁷ FCC’s Office of Engineering and Technology and and Consumer and Governmental Affairs Bureau, *Measuring Broadband America - February 2013* (Federal Communications Commission, February 2013), <http://www.fcc.gov/measuring-broadband-america/2013/February>.

Figure 3: Broadband Speeds Measured by Netflix



Source: Netflix Speed Index.¹⁸

Finally, we do not know how the merger will affect real prices. Comcast has made no secret of its desire for the merger to yield “revenue synergies.”¹⁹ Indeed, Comcast apparently sees these increased revenues as the more important benefit. Neil Smit, President of Comcast Cable, noted at the 2014 Deutsche Bank Telecom and Media Conference,

I think the revenue synergies are greater than the cost synergies. On the revenue synergies side the first would be in the residential area where we would seek to bundle more and that is call center training, that’s teaching people to sell another RTU on a call, on a service call, fix a billing problem, upsell to a third product, so just bundling better. You get higher ARPU, higher retention, lower churn rates.²⁰

The question with respect to prices, therefore, is whether these financial benefits to the firm reflect increased demand resulting from offering a better service, or simply a better ability to extract more of the rents than TWC.

Innovation

Finally, it is difficult to predict the effect of the merger on innovation. Research on the relationship between firm size and innovation does not reach definitive conclusions, despite decades of research.²¹ Small firms are likely to be better at some types of innovations and large firms at others. Similarly, scale will increase some incentives to innovate and decrease others.

¹⁸ <http://ispspeedindex.netflix.com/results/usa/archives>

¹⁹ Angelakis, *Declaration of Michael J. Angelakis In the Matter of Applications of Comcast Corp. and Time Warner Cable Inc. For Consent to Transfer Control of Licenses and Authorizations*, para. 9.

²⁰ <http://www.cmcsa.com/secfiling.cfm?filingID=950103-14-1756>

²¹ Wesley M. Cohen, “Fifty Years of Empirical Studies of Innovative Activity and Performance,” in *Handbook of the Economics of Innovation*, vol. 1 (Elsevier, 2010), 129–213, <http://linkinghub.elsevier.com/retrieve/pii/S016972181001004X>.

A firm's incentive to innovate can increase with size, for example, if increased size allows it to earn higher returns on innovative activities. This is especially likely to be true with innovations that require high fixed costs. It is probably no accident that the largest cable company, Comcast, has what is probably the best-reviewed user interface—the X1 platform. The flip side of that argument, however, is that fewer companies looking for solutions to certain problems—poor user interface in this case—may reduce the number of innovative paths explored to solve those problems.

Potential Harms

Opponents of the merger are generally concerned that the merged company's increased scale and scope will allow it to discriminate unfairly in both video and broadband.²² In both cases, the extent to which this is a concern rests on how the change in the number of subscribers affects the net benefits to the business of having content for the platform relative to any net benefits to the firm of degrading content from competitors.

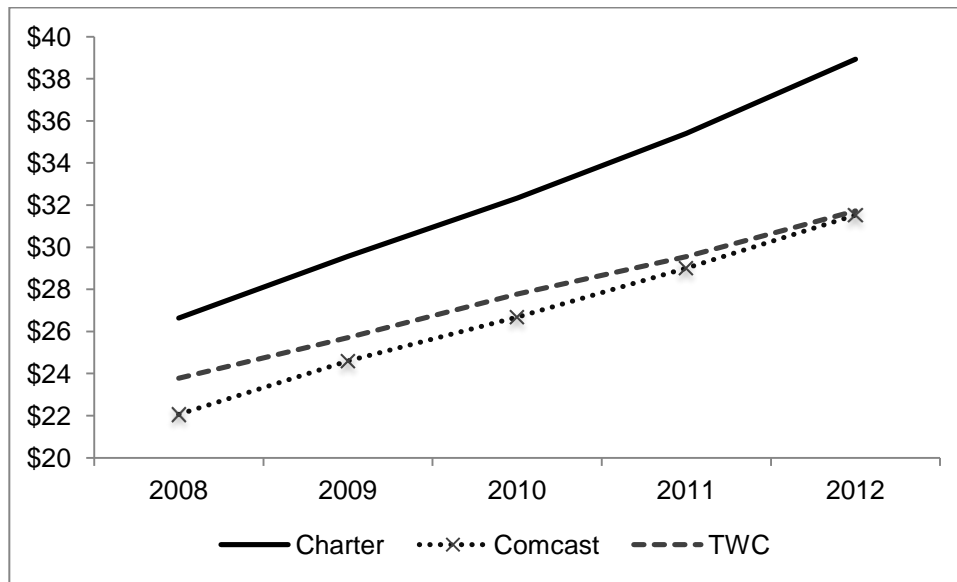
On the one hand, as Rosston and Topper (2014) and Israel (2014) discuss at length in their FCC filings for Comcast, research on the relationship between firm size and negotiating power is not dispositive.²³ Indeed, it is difficult to come up with a realistic economic theory as to why bigger distributors should get better deals than smaller distributors. The primary reason for the theoretical ambiguity is that while the content provider needs access to subscribers, the distributor needs content to distribute. Simply being bigger does not necessarily reduce the relative importance of any given content to demand by consumers for access to the platform.

On the other hand, in the case of video programming, the little bit of available public data shows that, in general, larger cable companies *do* pay less than smaller companies. Data from SNL Kagan show, for example, that for the largest three cable companies, the smallest (Charter) pays the most while the largest (Comcast) pays the least on a per-subscriber basis (Figure 4). However, the figure also shows the price paid by Comcast and Time Warner Cable converging over time.

²² See, for example, The Editorial Board, "If a Cable Giant Becomes Bigger," *The New York Times*, February 13, 2014, http://www.nytimes.com/2014/02/14/opinion/if-a-cable-giant-becomes-bigger.html?_r=0.

²³ Rosston and Topper, "An Economic Analysis of the Proposed Comcast - Time Warner Cable Transaction"; Mark A. Israel, "Implications of the Comcast/Time Warner Cable Transaction for Broadband Competition," April 8, 2014.

Figure 4: Monthly Programming Costs Per Subscriber



Source: Chart derived from data in SNL Kagan (2013).²⁴

The argument that larger firms inherently have stronger negotiating power as a potential harm to the merger implies that size conveys market power. But that is not the only hypothesis consistent with this outcome. For example, perhaps larger firms are better positioned to make long-term contracts with programmers. While smaller distributors may not like this state of the world, it would not imply that being larger creates additional market power for distributors *vis-à-vis* programmers. Unfortunately, the few data points available—as in the figure above—do not make it possible to rule out one hypothesis in favor of another.

Even if larger distributors do have advantages in video programming negotiations, it does not necessarily follow that a better negotiating position for distributors means harm to consumers. Given rapidly increasing programming costs, a reduction in the rate of increase due to an improved negotiating position may benefit, rather than harm, consumers if it has any effect at all.

Additionally, it is possible that the distributor's size affects the likelihood of carriage disputes affecting consumers. Comcast has not experienced carriage disputes that lead to temporary suspension of carriage itself, which unambiguously harms consumers. Such suspension has happened, however, with smaller distributors Cablevision (with Fox in 2010), DirectTV (with Viacom in 2012), and TWC (with CBS in 2013). To be sure, in 2012 DirectTV had only slightly fewer subscribers than did Comcast—19.9 million compared to 22.1 million²⁵—and one should probably not generalize from three data points. Nevertheless, the available evidence does not

²⁴ Robin Flynn, *U.S. Multichannel Subscriber Update and Programming Cost Analysis*, SNL Kagan Special Report, June 2013, <http://go.snl.com/rs/snlfinancialc/images/SNL-Kagan-US-Multichannel-Subscriber-Update-Programming-Cost-Analysis.pdf> See table on page 3.

²⁵ Federal Communications Commission, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, July 22, 2013, para. 130, Table 7, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-13-99A1.pdf.

support an argument that a bigger video distributor would necessarily lead to consumer harm on the video side.

On the broadband side, opponents of the merger have two general concerns. The first is that the merged company would have an incentive to block or otherwise degrade service from companies that offer competing services, such as Netflix. The second is that the merged company could present an entry barrier to any new Internet service or application.²⁶

For the sake of evaluating the merger, the relevant question for regulators and antitrust authorities is not whether Comcast or TWC have the incentive and ability to block or otherwise degrade Internet content. The question is whether the merger *increases* the incentive and ability to do so and, if so, does the increase pose an anticompetitive threat.

As with video, ultimately the question is whether incentives to discriminate unfairly outweigh incentives to increase demand for the platform. It is perhaps worth recalling, however, that the one telecommunications company that tried to block a competing service was tiny Madison River Telephone Company in North Carolina, which blocked Vonage until the FCC ordered it to stop via a consent decree.²⁷ It is dangerous to generalize from a single data point, but it is suggestive that perhaps the size of the provider is at least not the only factor relevant when thinking about incentives to behave in such a manner.

The specific question facing antitrust authorities is whether a merged Comcast/TWC with almost 40 percent of fixed broadband subscribers (or 20 percent of all broadband subscribers if including mobile)²⁸ is more likely to act in a potentially anticompetitive way than do Comcast and TWC separately, with 30 and 13 percent of subscribers. If so, do those concerns outweigh the benefits of increased scale?

How the Market Viewed the Competitive Effects of the Merger: A Simple Event Study

We may never know for sure whether regulators will have made the right decision, because if the merger is approved we will not know what would have happened without the merger, and vice versa. But there is some evidence concerning how investors view the likely effects of the merger on upstream firms. In particular, an event study—the reaction of the firms’ stock price to the merger news—can reveal the market’s unbiased view of how investors expect the merger to affect the firms. The changes in market value should take into account expectations regarding the chances the merger is approved and various remedies the government may impose.

In this case, the merger announcement was made after the stock market closed on February 12 and before market open on February 13.²⁹ Thus, the difference between the closing price on

²⁶ See, for example, Gene Kimmelman, “Testimony of Gene Kimmelman, President and CEO of Public Knowledge,” April 9, 2014, 2, <http://www.judiciary.senate.gov/imo/media/doc/04-09-14KimmelmanTestimony.pdf>.

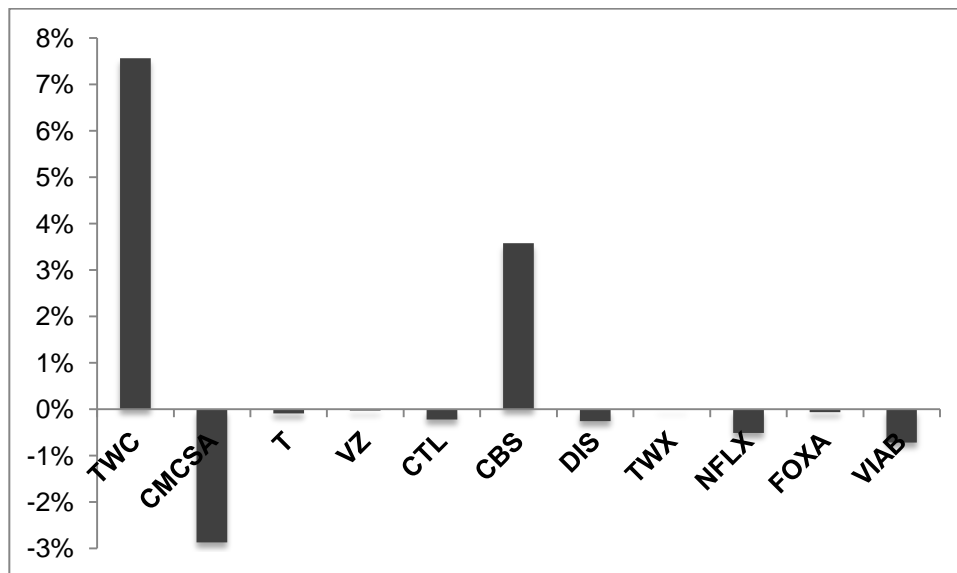
²⁷ Declan McCullagh, “Telco Agrees to Stop Blocking VoIP Calls,” *CNET*, March 3, 2005, http://news.cnet.com/Telco-agrees-to-stop-blocking-VoIP-calls/2100-7352_3-5598633.html.

²⁸ Israel, “Implications of the Comcast/Time Warner Cable Transaction for Broadband Competition,” 32.

²⁹ <http://corporate.comcast.com/news-information/news-feed/time-warner-cable-to-merge-with-comcast-corporation>

February 12 and the opening price on February 13 captures the market’s belief regarding the implications of this merger. Figure 5 shows this information.

Figure 5: Change in Share Prices Relative to Change in S&P 500 From Feb 12 Market Close to Feb 13 Market Open



TWC shareholders were the obvious big winner from the announcement, with TWC’s share price up more than seven percent relative the S&P 500 index immediately after the announcement. Comcast’s shares, by contrast, were down by almost three percent. Share of other broadband and video distribution firms AT&T, Verizon, and CenturyLink did not change much in response to the announcement, consistent with the change in the competitive landscape for residential consumers in any given region.

Netflix’s stock opened 0.5 percent lower the day after the announcement. This change is small relative to normal variance in Netflix’s stock,³⁰ so it is not clear if the change is meaningful. By the time the stock markets closed on February 13, Netflix’s stock was up more than one percent.

Programmers Disney, Time Warner, and Fox also saw almost no change in the prices of their stocks, suggesting that their shareholders did not view the merger as having much effect on their ability to earn revenues. Viacom’s stock was down about 0.7 percent relative to the S&P 500. The outlier is CBS, whose stock increased by more than three percent in response to an announcement on February 12 after the markets closed that CBS had decided to initiate a \$1.5 billion “accelerated share repurchase.”³¹

As evidenced by the CBS stock, event studies have inherent flaws that limit their effectiveness. The primary flaw is that stock prices are affected by a number of events in addition to the event of interest, ranging from surprise announcements about the macro-economy to factors affecting

³⁰ The average daily change in the absolute value of Netflix’s stock price from May 1, 2013 through May 2, 2014 was about 1.9 percent, according to <http://finance.yahoo.com/q/hp?s=NFLX>.

³¹ <http://www.reuters.com/finance/stocks/CBS/key-developments/article/2920904>

particular industries to factors affecting only that firm. Comparing changes of individual stocks to changes in the broader stock market helps with some of those factors, but not all, as the change in CBS’s stock price—which was driven by an event of greater importance to CBS than the merger—illustrates.

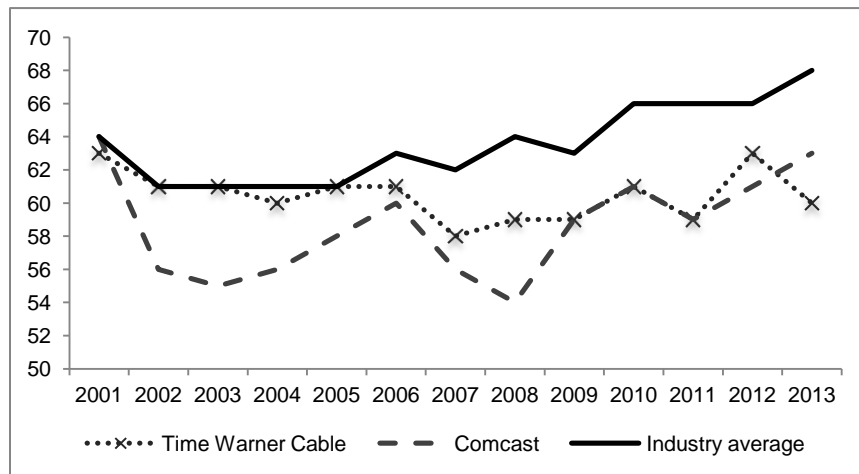
Nevertheless, for all the sound and fury of opposition to the merger, investors—except for TWC and Comcast shareholders—appear to have reacted with an emphatic “meh,” suggesting that perhaps the expected financial effects on relevant firms are small.

A Red Herring

Some opposition to the merger stems from the firms’ reputation for poor customer service. Public Knowledge’s Harold Feld was quoted in *The Washington Post* as saying, “When you put two bad companies together, they don’t remain equally bad. They get worse... And there’s a multiplier effect. Instead of just bad plus bad, you get badness squared.”³² While Feld’s quote is wonderful,³³ I am not aware of academic literature that supports this assertion.

It is true that neither firm rates well in consumer satisfaction surveys, but their ratings are similar to each other. The American Consumer Satisfaction Index survey finds TWC and Comcast customers with similar levels of satisfaction (Figure 6). Likewise, TWC and Comcast were similar in a CNN/Money – Zogby Analytics Survey (Figure 7), although Comcast’s results were somewhat more uniform than TWC’s, with approximately equal shares reporting “excellent” and “poor” customer service.

Figure 6: American Consumer Satisfaction Index, Subscription TV Service



Source: ACSI (2014).³⁴

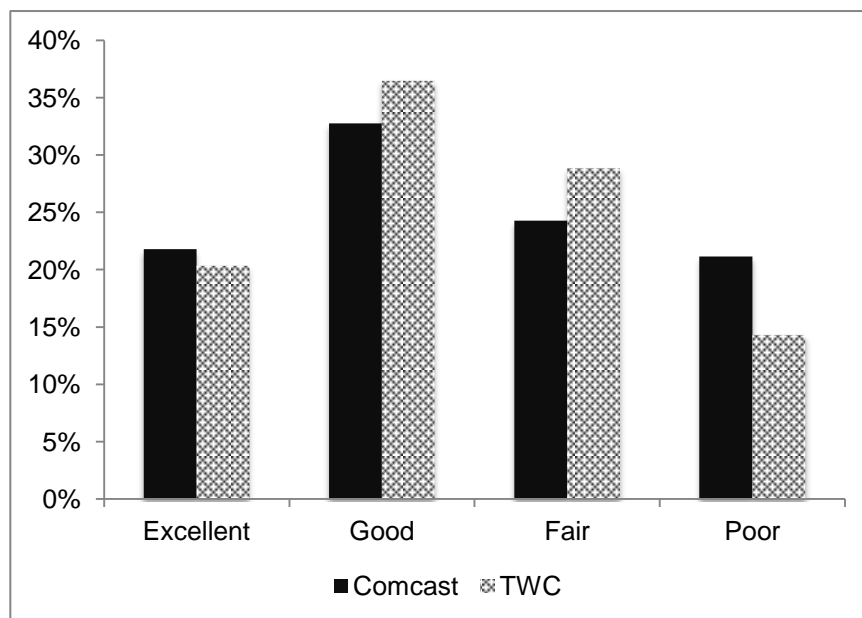
³² Catherine Rampell, “Comcast-Time Warner Cable Merger Is a Bad Deal,” *The Washington Post*, March 31, 2014, http://www.washingtonpost.com/opinions/catherine-rampell-comcast-time-warner-merger-is-a-bad-deal/2014/03/31/bf93eed0-b8db-11e3-9a05-c739f29ccb08_story.html.

³³ Seriously, truly inspired. I aspire to having a quote that good in a major popular publication someday.

³⁴

http://theacsi.org/index.php?option=com_content&view=article&id=149&catid=&Itemid=214&c=Comcast&i=Subscription+Television+Service

Figure 7: Share of Respondents Rating Customer Service As... (2013)



Source: CNN/Money – Zogby Analytics (2013)³⁵

David Cohen, Executive Vice President of Comcast, acknowledged customer service issues in a Senate hearing on the merger: “We are laser focused to try to improve [customer service]....We are totally open to the fact that we need a kick in the butt.”³⁶

Regardless, no matter how good or bad the companies’ customer service is, it is not relevant to the merger unless there is reason to believe the merger itself would make it worse.

Conclusion

Mergers have benefits and costs that, in theory, could lead to net benefits or net harms.³⁷ Comcast’s acquisition of TWC has generated a level of controversy consistent with the \$45 billion price. Nevertheless, the question regulators and antitrust authorities must answer is the same as it is for any merger: do the expected benefits that flow from increased efficiencies outweigh the chances that the merger could increase the incentive and ability of the combined firm to behave in anticompetitive behavior and the magnitude of those effects.

This paper explored the various arguments for and against the merger. Hopefully, with the proprietary data available to it, government officials will be able to conduct more rigorous analysis that allows them to reach a conclusion that yields the highest likelihood of improving economic welfare.

³⁵ <http://money.msn.com/investing/latest.aspx?post=29b455a7-8d44-4435-9011-959655111596>

³⁶ <http://blogs.wsj.com/moneybeat/2014/04/09/live-blogging-the-comcasttvc-senate-hearing/>

³⁷ I wrote this precise sentence in the conclusion to an analysis of the Comcast-NBC merger. I like to be consistent. Scott Wallsten, *An Economic Overview of the Implications for Online Video of the Proposed Comcast-NBCU Transaction*, July 2010, <http://www.techpolicyinstitute.org/files/comcast-nbc%20fcc%20chicago%20hearing.pdf>.