Neighborhooding is a well-tailored remedy

- The transaction threatens competition by locking in channel positions that will not reflect programming merit.
- Neighborhooding will prevent Comcast/NBCU from harming competition through anticompetitive channel position.
- Neighborhooding permits all business news channels, including CNBC, to continue to compete on their merits without any impediment.
- Neighborhooding also reflects consumer preference and advertiser interests.

Comcast changes channel lineups regularly

We have identified more than two dozen batches of channel lineup changes made by Comcast on major systems over the last five years (examples below).

2010
- **> 60** channels in New York
- Approx **40** channels in Baltimore
- Approx **60** channels in Philadelphia
- **System-wide change** in Denver

2009
- **System-wide change** in Seattle-Tacoma

2008
- **120** channels in Baltimore

2006
- Over **100** channels twice since 2006 in Philadelphia
- **System-wide change** to Brookline in Boston

2004
- Multiple **50** channel changes since 2004 in NJ

2003
- **> 60** channels in Chicago

Source: TMS

- Channel lineup changes are part of life for cable operators
- Comcast has privately acknowledged neighborhooding is the industry trend based on viewer preference

There's no evidence these changes hurt Comcast

Location	Date of Channel Lineup Change	Subscriber Change in Time Period Following Channel Lineup Change
Palm Beach County and Treasure Coast, FL	16-Jan-07	-
Houston, TX	16-Oct-07	-
Albuquerque, NM	27-Aug-05	-
Richmond and Henrico County, VA	30-Jul-05	-
Dallas, including Garland, Sunnyvale, TX	22-Sep-04	↓*

"-" indicates no statistically significant increase or decrease

"↓*" indicates a temporary statistically significant decrease (followed by increase in next period)

Source: MRI Data

Source: Leslie Marx report

PART V
OTHER CONDITIONS

ATTACHMENT B

Sample of Political/General Interest Guests on Bloomberg USTV from October 2009 - August 2010

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	**Alan Blinder**	Economist, Fmr. Fed Vice Chairman	7	11/17	1/12, 2/24, 4/23, 5/21, 7/13, 7/21	Outlook for the economy and what the government needs to do to create jobs and boost growth.
2	**Alan Greenspan**	Fmr. Federal Reserve Chairman	3		3/26, 7/15, 7/16	Future of the economy, financial reform and his legacy.
3	**Allan H. Goroll**	Professor of Medicine, Harvard Medical School, Mass General Hospital	1	11/17		Doctor Shortage to Spur Delays, Crowded ERs in Health Overhaul -- Dr. Goroll says the Massachusetts health-care initiative shows what can go wrong if the primary-care system isn't fixed simultaneously with the start of universal coverage.
4	**Ann Fulmer**	VP of Industry Relations for Interthinxo, a fraud detection company	1		6/10	A June 8th report from Interthinx found that suspected property valuation fraud almost doubled from the end of 2007 through the first quarter of this year.
5	**Austan Goolsbee**	Chief Economist on the President's Economic Recovery Advisory Board	14	10/9, 10/29, 11/2, 12/3, 12/8	1/14, 1/21, 1/25, 2/2, 2/5, 4/14, 4/20, 4/27, 7/21	Administration's regulatory reform plan - with a focus on the consumer financial protection agency, WH jobs summit preview, latest on financial reform.
6	**Barney Frank**	U.S. House Representative from Massachusetts's 4th congressional district	8		1/7, 1/14, 1/21, 1/29, 2/18, 3/5, 6/25, 7/16	Financial regulatory reform legislation, banking fees.
7	**Ben Stein**	TV Host/Actor/Author/Economist	1		4/16	Goldman Sachs Sued by SEC for Fraud Over Mortgage-Backed CDOs. Ben Stein accused Goldman of this in a Sunday AP interview.
8	**Brian O'Neill**	Attorney	1		6/9	O'Neill represented 32,000 people in the Exxon Valdez spill, mostly fisherman, natives and small businesses. He won $1.4 billion. He says current victims of BP Spill are not going to fare well, in part because of legislation passed after Exxon Valdez limiting liability.
9	**Bruce Marks**	CEO, Neighborhood Assistance Corp of America	1	12/14		Marks comes on set following NACA's meeting with homeowners at the Javits Center to help them rework mortgages and a noon rally in front of Chase headquarters.
10	**Carol Browner**	Former EPA chief and current Director of the White House Office on Energy and Climate Change Policy	6		3/31, 5/7, 5/20, 6/1, 6/17, 8/4	Oil spill, offshore drilling safety, and the future of climate change legislation.
11	**Chris Christie**	Governor of New Jersey (R)	1		3/17	Christie just released his 2011 budget. He's planning major spending cuts in school aid, pensions, etc.
12	**Christina Romer**	Chair of the Council of Economic Advisers	14	10/2, 10/29, 11/12, 12/3, 12/4	1/8, 1/29, 2/11, 2/17, 3/5, 6/4, 7/2, 7/30, 8/6	Job reports, WH reaction to GDP.
13	**Christine Gregoire**	Governor of Washington (D)	3		2/19, 2/23, 7/9	Washington state economy, her efforts to balance the state budget, and President Obama's health care plan.
14	**Christopher Dodd**	Senator (D-Connecticut)	6	11/11	2/26, 3/4, 4/21, 7/15, 8/4	Financial regulatory reform, health care reform, Fed nominees, partisanship in Senate.

Sample of Political/General Interest Guests on Bloomberg USTV from October 2009 - August 2010

15	**Chuck Collins**	Institute for Policy Studies, Program on Inequality and the Common Good	1	10/20		He co-wrote a book with Bill Gates Sr., "Wealth and Our Commonwealth" which makes the case for taxing the rich.
16	**Chuck Schumer**	Senator (D-New York)	1	12/23		Healthcare, regulation.
17	**Damon Silvers**	Associate General Counsel for the AFL-CIO	3		1/11, 2/18, 3/4	Roundtable on Financial Regulatory Reform.
18	**Darrell Issa**	U.S. House of Representatives from California's 49th district	10	10/26	1/7, 1/12, 1/19, 1/27, 2/19, 4/20, 5/11, 7/1, 7/23	Geithner/AIG hearing, Toyota, Issa's request info from SEC about the timing and coordination of Goldman Sachs suit.
19	**David Kessler**	Fmr. Commissioner of FDA	1		6/8	From Jefferies Global Life Sciences Conference in NY.
20	**David Petraeus**	U.S. Army General	1		4/15	Afghanistan, Iraq, Iran.
21	**David Reiss**	Law Professor and author of "Rating Agencies: Facilitators of Predatory Lending in the Subprime Market"	2		4/8, 6/3	Discusses how the three largest rating agencies exploited their privileged regulatory status to profit from the booming subprime mortgage market at the expense of homeowners; expert in real estate, real estate finance, rating agency regulation, and housing policy.
22	**David Walker**	President and CEO of The Peter G. Peterson Foundation	4	12/21	1/13, 1/28, 2/16	Ideas for restoring fiscal responsibility in a country now trillions of dollars in debt, Greece debt crisis, budget deficit.
23	**Dean Baker**	Co-director of the Center for Economic and Policy Research	9	10/1, 11/10	2/1, 3/15, 4/7, 4/21, 5/6, 6/9, 7/16	Banking regulatory reform hearing, President's budget and the growing budget deficit, Bush tax cuts
24	**Deborah Hersman**	Chairwoman of the NTSB	1	10/15		Update on Buffalo and Hudson crashes, DC Metro investigation, texting-while-driving dangers.
25	**Deval Patrick**	Governor of Massachusetts (D)	1	10/28		Healthcare and state economy/jobs.
26	**Ed Rendell**	Governor of Pennsylvania (D)	1	11/6		Pennsylvania's job market on a day that the federal government releases the Oct. jobs report.
27	**Elizabeth Duke**	Member of the Board of Governors of the Federal Reserve System	1		7/12	Federal Reserve conference on small business lending.
28	**Elizabeth Kautz**	Mayor of Burnsville, Minnesota	1		7/29	Discuss the debt issues cities are facing across the country.
29	**Elizabeth Warren**	Professor and Chair of the Congressional Oversight Panel	12	10/9, 10/15, 11/6, 12/10	1/14, 2/11, 3/3, 4/14, 4/29, 6/10, 6/22, 7/14	Congressional Oversight Panel's monthly reports.
30	**Ewell Smith**	Exec. Director, Louisiana Seafood Promotion & Marketing Board	1		6/8	Impact on the state's fishing industry and seafood consumers on Day 50 of BP oil spill.
31	**Giovanni Coratolo**	VP of small business policy at the U.S. Chamber of Commerce	1		6/8	Small business confidence increased in May. But do small businesses have access to lending?
32	**Gray Davis**	Fmr. Governor of California (D)	2	10/7	1/25	California's fiscal crisis, bond sale, and what needs to be done.

Sample of Political/General Interest Guests on Bloomberg USTV from October 2009 - August 2010

33	Greg Hebner	President, Mortgage Outreach Services Group	1		4/7	Hebner will react to testimony given by former Citigroup executives about the company's risk control system, its mortgage lending process during the real estate boom, how it built conduits to shovel mortgage loans out to yield-hungry investors.
34	Hal Scott	Professor and Director of the Program on International Financial Systems at Harvard Law School	8	12/2, 12/14	1/11, 1/22, 3/12, 4/2, 4/29, 6/25	On regulation of bank size and trading, Geithner's role in such and in AIG bailout.
35	Hilda Solis	Secretary of Labor	1		2/5	Monthly employment numbers.
36	J. James Rohack	President, American Medical Association	2	10/19	2/25	Healthcare latest.
37	Jennifer Granholm	Governor of Michigan (D)	5	12/4	2/17, 5/21, 7/14, 8/2	Michigan's high unemployment and how economic stimulus has worked for Michigan, state of the auto industry, extending unemployment benefits, oil spill from a Michigan pipeline into Kalamazoo River.
38	Jesse Eisinger	Columnist and Reporter, ProPublica	2		4/12, 5/6	Eisinger's recent story discusses how hedge fund Magnetar helped create $40 billion worth of mortgage-backed securities and then bet against them; also reaction to FCIC hearings.
39	Jill Hershey	VP, The Financial Services Roundtable	1		1/22	The Financial Services Roundtable shares the goals of the Administration to promote responsible lending, increase jobs and promote a stronger economy.
40	John Cornyn	Senator (R-Texas)	1		5/20	Tuesday's primary elections and the financial regulation bill.
41	John Kerry	Senator (D-Massachusetts)	1		7/22	Climate change legislation, Afghanistan war, BP/Lockerble.
42	John Liu	New York City Comptroller	1		4/9	He made statement yesterday that he would not rule out raising taxes on Wall Street bonuses. We ask him about this stance and the state of the city.
43	John McCain	Senator (R-Arizona)	1		8/4	Stimulus spending, Afghanistan, midterm elections, energy bill.
44	Jon Corzine	Fmr. Governor of New Jersey (D)	1		2/24	1) The Toyota hearings 2) Grading Pres. Obama's first year 3) Federal Deficits/State Financing 4) Goldman Sachs 5) Outlook on the US Economy.
45	Kathleen Sebelius	Secretary of Health and Human Services	3		2/19, 2/25, 3/23	Latest on healthcare reform.
46	Kenneth Feinberg	Special Master for TARP Executive Compensation	8	10/22, 12/11	1/6, 2/8, 3/23, 4/26, 5/6, 6/25	Blankfein bonus, other related exec compensation issues. BP oil spill financial claims.
47	Linda Douglass	Fmr. Director of Communications for the White House Office of Health Reform	3	12/21	2/25, 3/4	Obama Health Summit, President Obama's plan for Comprehensive Health Reform
48	Luigi Zingales	Professor of Finance at U. of Chicago	3	10/5, 12/15	2/4	Analysis of the financial system and regulatory reform.
49	Mark Greene	CEO, FICO	1		2/19	State of consumer credit, impact of new credit card legislation, company news.

Sample of Political/General Interest Guests on Bloomberg USTV from October 2009 - August 2010

50	Mark Warner	Senator (D-Virginia)	7	10/2	2/11, 2/25, 3/17, 4/19, 4/22, 7/15	Discussions around progress of financial regulations reform legislation and healthcare.
51	Michael Nutter	Mayor of Philadelphia, PA	1		7/27	Push for a federal jobs bill, housing market and the economy's effect on states. Philadelphia currently as a 11% unemployment rate.
52	Mike Beebe	Governor of Arkansas (D)	1		8/4	Arkansas is one of only four states not in a debt hole; Beebe has created 25,000 jobs and brought in close to $4B in new investments since taking office in January 2007
53	Mitchell Warren	Executive Director of AVAC (AIDS Vaccine Advocacy Coalition)	1		4/1	Gilead Sciences Inc. may learn this year whether its drugs for treating HIV can also stop people from catching the virus in the first place.
54	Nancy Pelosi	Speaker of the House	1	10/21		
55	Olympia Snowe	Senator (R-Maine)	1	10/22		Healthcare legislation.
56	Peter Orszag	Fmr. Director of the Office of Management and Budget	4	11/10	1/26, 2/1, 2/17	Cost of healthcare, discretionary spending freeze proposal, President's budget, new debt commission.
57	Philip Angelides	Chairman of Financial Crisis Inquiry Commission	1		5/10	Goldman.
58	Rahul Singhvi	CEO, Novavax Inc.	1	10/20		Novavax is announcing a 2-stage clinical study of an H1N1 vaccine. Novavax is among the companies developing a vaccine vs. H1N1.
59	Ralph Nader	Consumer advocate and third party presidential candidate	2	10/9	2/4	White House push for a consumer financial protection agency following the president's speech on the topic, Toyota gas acceleration issue.
60	Richard Blumenthal	Attorney General of Connecticut (D)	2		4/29, 8/2	Preliminary review for a possible state investigation of Goldman Sachs, investigation of agreements between the country's largest e-book publishers and Amazon.com, Inc. and Apple, Inc. that may block competitors from offering cheaper e-book prices.
61	Richard Lugar	Senator (R-Indiana)	1		1/8	Response to the Christmas day airline bombing attempt, Iran and Afghanistan.
62	Richard Riordan	Fmr. Mayor of Los Angeles	1		7/19	LA's Budget crisis - Is the city on the verge of bankruptcy; what do to about the state of Calpers and Calstrs 1.
63	Robert Corker	Senator (R-Tennessee)	4	10/9	2/12, 4/21, 7/15	Regulatory reform, and the Fed's role in a new regulatory system
64	Robert Heller	Fmr. Fed Governor	5		1/25, 2/2, 3/3, 4/6, 5/19,	Proposal to form a Consumer Protection Agency with the Fed.
65	Robert Shipp	Chairman of Gulf of Mexico Fishery Mgt. Council	1		5/3	On impact on fishing and tourism in the Gulf with the BP/RIG oil spill hitting land over weekend.
66	Roderick (Rod) Paige	Fmr. U.S. Secretary of Education	1		3/16	The motion is: Don't Blame Teachers Unions For Our Failing Schools. Paige is against the motion. As secretary, Paige was an unstinting advocate of student achievement, employing "best of breed" solutions to achieve results.

Sample of Political/General Interest Guests on Bloomberg USTV from October 2009 - August 2010

67	Ron Paul	Republican Congressman for the 14th congressional district of Texas	2		1/13, 3/11	Reaction to Financial Crisis Commission, Consumer Financial Protection Agency being part of the Federal Reserve
68	Scott Gottlieb	Fmr. FDA deputy commissioner	2	10/13	2/22	Senate Financial Services Committee vote on healthcare bill, FDA, regulation issues.
69	Steven Feldman	Attorney	1	10/20		Federal Investigators plan to charge at least 10 securities professionals with insider trading. Feldman is a former Federal Prosecutor and worked in the SEC's Fraud Task Force unit.
70	Steven Nissen	Chairman, Cardiovascular Medicine, Cleveland Clinic	2		2/22, 7/14	Nissen was the one who published a paper in 2007 arguing that diabetes pill Avandia causes heart attack. Avandia generated $1.1B for Glaxo last year.
71	Susan Urahn	Pew Center On The States	1		2/18	State budgets, already hurting from the recession, face the challenge of filling a $1 trillion shortfall to pay for pension and health-care benefits promised to retired workers.
72	Thayer Verschoor	State Senator from Arizona (R-Gilbert)	1		3/12	Verschoor is a leading critic of a proposed sales tax increase to help balance Arizona's budget, but he's also trying to eliminate or reduce a charter school funding cut that would take effect only if voters reject the tax hike.
73	Thomas Daschle	Fmr. U.S. Senator from South Dakota and Fmr. U.S. Senate Majority Leader	2	10/14, 10/27		Healthcare policy.
74	Tim Pawlenty	Governor of Minnesota (R)	1		8/6	
75	Uwe Reinhardt	Professor of Economics and Public Affairs, Princeton	3	11/18, 12/24	3/22	Reinhardt says the bulk of the healthcare bill is good and when you look at the cost over 6 years, it is a small amount. He says you must pass it and then work to perfect it later
76	Valerie Jarrett	Senior Advisor and Assistant to the President	2		1/4, 4/22	Bank fees, preview to Obama's speech.
77	Valerie Ramey	Professor of Economics, UC San Diego	1	11/2		Why Stimulus Makes Consumers Poor.
78	William Dunkelberg	Chief Economist at National Federation of Independent Business	3	12/9	2/22, 6/8	Decline in small business confidence in 2009, small business economic trends.
79	William Elmore	Associate Administrator of SBA's Veterans Business Development	1	11/11		Veterans and small-business employment: Elmore says 1 out of every 7 vets becomes a small business owner. He can talk about stats on vets and small business and SBA's initiatives to help them (special loan program, business outreach centers, development centers)
80	William Ritter	Governor of Colorado (D)	2		5/4, 8/10	Alternative energy and state employment issues

EXHIBIT 2

REDACTED -- FOR PUBLIC INSPECTION

REBUTTAL REPORT

BY
LESLIE M. MARX
Professor of Economics, Duke University
and former Chief Economist, Federal Communications Commission

August 18, 2010

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A. Executive summary

1) Comcast and NBC Universal ("Comcast"), in their joint "Opposition to Petitions to Deny and Response to Comments," filed July 21, 2010, have argued that Comcast would have no ability or incentive to pursue anti-competitive foreclosure strategies, either partial or complete, against unaffiliated content providers in the event of the closing of the proposed merger ("the Transaction").

2) I have been asked by Bloomberg L.P. ("Bloomberg") to evaluate the arguments put forward by Comcast, including the economic reports submitted by Drs. Mark Israel and Michael L. Katz (Israel and Katz) and Drs. Gregory L. Rosston and Michael D. Topper (Rosston and Topper) in support of this view.

3) In this report, I rebut all of the criticisms offered by Drs. Israel, Katz, Rosston and Topper related to my original Report and show that the Transaction creates the incentive and increases the ability for Comcast to reduce the distribution, viewership, and revenue of unaffiliated business news networks that compete with networks that Comcast will control as a result of the Transaction, particularly CNBC, the leading TV business news programming network. Absent appropriate conditions, such actions will harm competition in the TV business news market and reduce the diversity and quality of news and information sources available to consumers.

4) I do so in four parts. First, I demonstrate a sound basis for the view that Comcast indeed does have the ability to foreclose Bloomberg's video news network Bloomberg Television ("Bloomberg TV") and that this ability is founded on established economic theory regarding the economics of program production in the television industry.

5) I next rebut Comcast's interpretation of the economics literature analyzing foreclosure and their economists' studies on Comcast's own carriage decisions. Despite Comcast's claims to the contrary, the economics literature analyzing vertical integration in cable markets has consistently found that integrated distributors are more likely to carry and/or place affiliated content on favorable product tiers and are less likely to carry and/or place unaffiliated content on favorable tiers.

6) Furthermore, this conclusion is reinforced by the analysis of Comcast's own economists. In particular, Comcast's economists originally concluded that there is no evidence that Comcast would manipulate carriage of their affiliated networks for anti-competitive purposes by revisiting

the analysis of Goolsbee (2007);[1] however, when they corrected a coding mistake in their analysis, the relevant empirical results were reversed,[2] implying that Comcast does engage in strategic foreclosure, with the data pointing to the anti-competitive explanation for their propensity to carry their own networks.[3] It follows that the acquisition of control over the NBCU networks would increase this strategic foreclosure.

7) Furthermore, although Comcast's economists argue there is no evidence that Comcast limits its carriage of rivals to its own affiliated networks, their own data and empirical framework provide evidence that Comcast *does* limit its carriage of networks that compete with Comcast's affiliated networks, with the implication that acquiring control over the NBCU networks would give Comcast the ability and incentive to limit its carriage of rivals to those networks as well.

8) I next rebut each of the points raised by Comcast in support of the view that Comcast will have no incentive to foreclose business news programming networks such as Bloomberg TV. I provide further support for the view that TV business news programming is a well-defined antitrust market by providing further econometric evidence in support of the view that cable operators, in addition to viewers and advertisers, perceive Bloomberg TV and CNBC to be close substitutes, expanding my hypothetical monopolist test to allow for bargaining between content providers and distributors, providing evidence in support of a price-discrimination market in TV business news advertising, and using the confidential data provided by Drs. Israel and Katz to demonstrate that Comcast does have the incentive to deny carriage to Bloomberg TV.

9) Finally, I analyze changes in Comcast's own channel lineups between 2007 and 2010 and find that costs to Comcast from satisfying Bloomberg TV's proposed remedial condition of "neighborhooding," i.e., that Comcast be required to reorganize its channel alignment so that all existing business news channels, including Bloomberg TV, be carried on contiguous and adjacent channels on all tiers where CNBC is carried, are likely to both be small and borne in the normal course of business operations in the coming years.

10) In summary: There is evidence vertically integrated MVPDs use strategic foreclosure to disadvantage rival networks. There is further evidence that Comcast itself forecloses existing rivals. Bloomberg TV is a rival network to CNBC, and strategic foreclosure by Comcast has the potential to significantly diminish the effectiveness of Bloomberg TV and other CNBC rivals as

[1] Austan Goolsbee, "Vertical Integration and the Market for Broadcast and Cable Television Programming," April 2007.

[2] I provided a letter to the Department of Justice on July 29, 2010, notifying them of the coding mistake in Drs. Israel and Katz's analysis. Comcast filed an amended regression analysis correcting their coding mistake on August 13, 2010. (Letter to Marlene H. Dortch, Secretary, Federal Communications Commission from Michael H. Hammer, August 13, 2010)

[3] Despite the fact that the results in the corrected analysis are essentially the opposite of the results in the original analysis involving the coding mistake, Comcast maintains without a credible basis that its conclusions are unaffected. See Section C.2 below.

competitors in the business news programming market. In diminishing the competitiveness of CNBC's business news programming competitors, Comcast would be harming not merely those news organizations, but also: (a) the public interest through the reduction in diversity of news and information sources, (b) all MVPD subscribers because MVPDs would have to pay more for CNBC and would pass that along to subscribers,[4] and (c) advertisers that highly value a business news audience because they would have to pay more for access to CNBC audiences.[5]

11) As discussed in my original Report, the options available to Comcast to act on its incentive to diminish the competitiveness of Bloomberg TV are multiple and include: poor channel placement far from CNBC, poor tiering, failure to carry, use of market power as a multi-network owner to limit distribution for Bloomberg TV on other MVPDs,[6] use of market power as a multi-network owner and MVPD to bundling advertising on CNBC with advertising on other owned networks and/or spot advertising on Bloomberg TV to the detriment of Bloomberg TV, and restrictions on the online delivery of Bloomberg TV as a condition of carriage on Comcast systems.

B. Comcast has the ability to pursue anti-competitive foreclosure strategies against Bloomberg TV

12) Comcast's economists, Drs. Israel and Katz, claim that an integrated MVPD can profitably engage in foreclosure to help its own networks only if (a) it is a sufficient bottleneck and can drive the network out of business, (b) the integrated company lacks sufficient bargaining power to negotiate affiliate fees with the independent networks, and (c) gains to foreclosing outweigh losses.[7] They

[4] As evidence that competition among cable networks disciplines affiliate fees consider the example provided in my initial Report: "Historical pricing in cable TV news programming illustrates that competition within cable programming categories is indicative of distinct product markets. For example, Waterman and Weiss (1997, p.68) describe how in 1981, CNN sharply reduced its fees to cable operators when faced with the launch of ABC's Satellite News Channel (SNC). Three days after the announced launch of SNC in the fall of 1981, Ted Turner announced that he would offer a second news service, CNN2, which became Headline News, for no extra charge to cable operators. 'CNN2 launched on schedule [by January 1, 1982], and SNC soon followed. SNC, though, failed to obtain enough system affiliations, and within a year its owners had shut it down, sold their assets to Turner Broadcasting, and agreed to a three-year no-competition clause. Then, within a month of SNC's demise, Turner announced that he would more than triple CNN's fees to cable operators.'" (Marx Report at paragraph 67, Bloomberg Petition to Deny, filed June 21, 2010) See Ford and Jackson (1997) estimating that the pass through of cost decreases is approximately 50%, all else equal, suggesting that affiliate fee increases would translate into price increases for consumers, with approximately half of the price increase passed along to consumers. (Ford, G. and J. Jackson (1997), "Horizontal Concentration and Vertical Integration in the Cable Television Industry." *Review of Industrial Organization* 12, 501-518.)

[5] Diminished competitiveness of Bloomberg TV would reduce its ability to constrain CNBC's advertising rates for the category of advertisers that place a particular value on advertising time on business news networks. See ¶¶ 106-108, infra. [[

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[6] The results of Table 15 in my original Report show that major multi-network owners are able to secure greater distribution for their networks, even controlling for network quality, network maturity, and trends over time.

[7] Israel and Katz at paragraph 131.

argue that none of these preconditions holds for the proposed Transaction. However, the economic arguments underlying their conditions (a) and (b) are not correct, and, as I show in Section D.2 below, if CNBC were affiliated with Comcast, the gains to Comcast from foreclosing Bloomberg TV would outweigh the losses.

13) In support of condition (a), Comcast disingenuously argues that it "only" holds a 24 percent share of MVPD subscribers and cites recent case law advocating that "it was arbitrary and capricious for the Commission to conclude that a cable operator serving more than *30 percent* of the market poses a threat either to competition or to diversity in programming."[8] (emphasis in the Comcast filing) What Comcast fails to note is that the U.S. Court of Appeals did not set 30% as some type of threshold, but instead the Court held that the FCC failed to "examine the relevant data and articulate a satisfactory explanation for its action," and rejected the 30% ownership cap.[9]

14) Despite Drs. Israel and Katz's claims to the contrary, the economics literature does not agree that their condition (a) is necessary for foreclosure. In their chapter in volume 4 of the *Handbook of Industrial Organization* titled "A Primer on Foreclosure," Rey and Tirole (2007) conclude: "Foreclosure varies in extent. It can be complete, as in the case of a refusal to deal (equivalently, an extravagant price can serve as 'constructive refusal') or in the case of technical integration between complementary goods, or partial, as when the bottleneck owner favors some firms or products in the adjacent market to the detriment of other competitors."[10] Furthermore, in non-monopoly markets, foreclosure can vary in *effect*, as in the case where refusal to deal by one firm can cause a rival to exit (complete) or merely reduce the desirability of the rival's product (partial).

15) Indeed, the existing economics literature analyzing television program supply implies an MVPD can induce harm by favoring an integrated network. Chen and Waterman (2007) conclude, "Like many other media products, cable networks are subject to substantial economies of scale with respect to the number of subscribers reached. That cost condition implies that strategic exclusion of an unaffiliated rival network by an MSO would raise that rival's average programming cost per subscriber, thus limiting its ability to invest in program quality, and potentially inducing it to exit the market altogether. For an ad-supported basic cable network, moreover, cost-per-thousand advertising rates are known to be an increasing function of the network's national audience reach, and advertisers regard geographic gaps in the national audience coverage of a given network to be a serious disadvantage. In this case, strategic vertical foreclosure may thus compound a rival network's disadvantage in offering a competitive quality of programming."[11] Furthermore, the

[8] Opposition at 164.

[9] Comcast Corporation v. F.C.C., 579 F.3d 1, 19 (D.C. Cir. 2009).

[10] Patrick Rey and Jean Tirole (2007), "A Primer on Foreclosure," Chapter 33, *Handbook of Industrial Organization*, Vol. 4, 2145-2220, at p.2148.

[11] Chen, D. and D. Waterman (2007), "Vertical Ownership, Program Network Carriage, and Tier Positioning in Cable

analysis of Owen and Wildman (1992) shows that widespread distribution is critical for any network,[12] with the implication that losing a significant distributor like Comcast would necessarily reduce Bloomberg TV's incentives to invest in programming and could possibly force them to exit the market over time.

16) In the Opposition at p.166, Comcast claims "The fundamental assumption underlying this theory – that Comcast's denial of carriage would necessarily cause a network to *reduce* its investment incentives – is entirely unsupported." (emphasis in original) This statement is absurd in its suggestion that Comcast might actually be helping Bloomberg TV by denying it carriage and is at odds with the established economics literature (see Chen and Waterman (2007) quoted above) and with recent evidence cited by Drs. Israel and Katz.[13]

17) While Drs. Israel and Katz's condition (a) was at least partially correct, their condition (b) is simply wrong. They suggest the key issue is one of simple horizontal market power in upstream markets and that "as long as the network created greater consumer value than did alternative networks, it would be in the interest of the MVPD to carry the network."[14]

18) This argument, however, misses the point of the foreclosure literature. The concern is not that increased bargaining power by Comcast would reduce the share of surplus that a content provider can earn. The concern is that the Comcast's cable systems might be willing to completely forgo the joint surplus created by a content provider like Bloomberg TV because of the benefits such a decision may have for its affiliate upstream rival CNBC.

19) For example, even though Bloomberg TV might benefit consumers more than alternatives, it may not be in Comcast's interest to carry Bloomberg TV even if it could extract all rents via affiliate fees. Consider the case in which Bloomberg TV and CNBC engage in price competition for advertisers. If an integrated Comcast carried only CNBC, then it would at least get monopoly advertising revenues from business news on Comcast systems.[15] Carrying Bloomberg TV, even though consumers want it, would reduce CNBC's advertising revenues, which in turn could offset any potential affiliate fee reductions that Comcast might be able to negotiate or higher subscription fees Comcast might be able to extract from consumers due to their higher willingness to pay for

Television: An Empirical Study," *Review of Industrial Organization* 30(3), 227-251, at 229-230

[12] Bruce M. Owen and Steven S. Wildman (1992), *Video Economics*. Chapter 2 (esp. at pp.41-44).

[13] Drs. Israel and Katz (footnote 192 at para 142 in their rebuttal comments) cite the "Crawford Presentation." Slides 35-38 of that presentation demonstrate the profitability of raising rivals' costs/reducing rivals revenue based on an analysis in the book *Video Economics* by Owens and Wildman. Undermining the Israel and Katz argument, this analysis shows that being foreclosed from Comcast's market would reduce Bloomberg TV's incentives to invest in quality programming and thus benefit CNBC not only in Comcast's market, but also in all of the markets in which CNBC and Bloomberg TV compete.

[14] Israel and Katz at paragraph 135.

[15] Revenues would be even higher if if Bloomberg TV were forced to reduce its investments in program quality or exit the market.

Bloomberg TV. Thus, whereas if Comcast were unintegrated, it would want to carry both networks (because it would not internalize the loss of Bloomberg TV/CNBC advertising revenue), by being integrated, it would only wish to carry one network.

20) It follows from the above paragraphs that Drs. Israel and Katz's claim that "only the loss of carriage on multiple MVPDs would pose a real threat to networks"[16] is incorrect. A real threat to networks can be induced by failing to be carried by a single large MSO, or even without a failure to gain carriage (e.g. due to poor channel positioning or tier placement).

21) Drs. Israel and Katz continue to say that "by denying carriage to a network, Comcast would heighten that network's incentive to achieve carriage on other MVPDs, which, by fundamental economic logic, would tend to reduce the price the network would charge those other MVPDs." [17] The logic that denying carriage would reduce fees is also flawed. If anything, it would increase them or is at best ambiguous.[18]

22) Drs. Israel and Katz claim that as average programming costs per subscriber go up, there is some fundamental economic logic that will result in prices going down. Even when one notes that here we are considering average cost, not marginal cost, logic does not suggest that prices go down, particularly if a network is close to the margin where it would choose to shut down. Related to this, Drs. Israel and Katz argue that marginal effects and not average effects matter for investment absent shutdown, and hence investment effects are ambiguous.[19] But given that we are considering an environment in which shutdown is a concern, this argument is flawed.

23) The arguments above establish that an MVPD with a large (e.g. 24%) market share can, at least in principle, either partially or completely foreclose a content provider that competes with an upstream rival. In the case of the business news market, however, Comcast's 24% market share of MVPD subscribers understates its ability to foreclose Bloomberg.

24) As shown in Table 2 of my original Report, Comcast's subscriber share is between 40% and 65% in the top-fifteen DMAs of Chicago, Philadelphia, San Francisco, Boston, Atlanta, Washington, DC, Houston, Detroit, Seattle, and Minneapolis (and approximately 10% in New York City). These are widely recognized as some of the most influential business center in the United States. Of the 16 cities designated "Major national business centers" or higher in the Ranally city ratings,

[16] Israel and Katz at paragraph 134.

[17] Israel and Katz at paragraph 134.

[18] A simple example demonstrates this point. Consider two MVPDs and one content provider N, where the content provider must recoup fixed costs to stay in business or otherwise exit the business. Consider the case in which MVPDs have all bargaining power and pay just enought for the content provider to recoup costs. (In a model with bargaining power, a similar analysis applies.) Assume the gains to each MVPD are higher than the costs of programming to N, so it is efficient for N to be carried. If one MVPD refuses to contract with N, N must recoup all fixed costs from the one remaining MVPD. Clearly prices go up or N will go out of business.

[19] Israel and Katz at paragraph 138, footnote 186.

Comcast is the dominant MSO in 11.[20] This is consistent with a business news network needing Comcast distribution to attract advertisers targeting residents of the major business centers. Indeed, the potential audience for business news programming networks is disproportionately composed of Comcast subscribers. 29.4% of the readers of the business news publications *Wall Street Journal, Forbes, Fortune, The Economist*, or *Bloomberg Businessweek* are Comcast cable subscribers, which is 44.2% of these readers who are cable subscribers.[21] Thus, Comcast is a necessary distributor for a network needing access to this key business news audience. For example, Bloomberg TV would be expected to lose more than {{ }} of its advertising revenue if it were to lose distribution through Comcast.[22]

25) Thus, established economic theory regarding the economics of program production in the television industry and the evidence specific to Comcast being a critical distributor for TV business news networks support the conclusion that Comcast has the ability to foreclose Bloomberg TV.

C. The evidence shows vertically integrated MVPDs, and Comcast in particular, discriminate against unaffiliated programming

C.1. The economics literature is replete with evidence that vertically integrated MVPDs discriminate against unaffiliated programming

26) In the Opposition, Comcast has titled Section (c) on page 172 "There is no Evidence that Vertically Integrated MVPDs Discriminate Against Genre Programing." Comcast further claims, "the evidence does not support the hypothesis that vertically integrated MVPDs tend to deny carriage to, or otherwise disadvantage, networks with which they are not affiliated, particularly

[20] The Ranally city rating system classifies U.S. cities based on their economic function. (http://en.wikipedia.org/wiki/Ranally_city_rating_system, accessed August 12, 2010). The cities where Comcast is the dominant MSO include the cities listed above (except Seattle which is given the next lower classification of "Other national business center") plus Miami and Pittsburgh.

[21] MRI Data show the number of cable subscribers in the top 200 DMAs that read one or more of these five titles, weighted by Comcast's share of cable subscribers in the DMA (Source: SNL Kagan, 4th Quarter 2009), divided by the number of people who read these titles in the US is 29.4%. Also, 66.4% of these readers are cable subscribers. The calculation assumes that Comcast subs in a given DMA are not systematically different from non-Comcast subs in that DMA. Note: MRI Data exclude DMAs 71, 142, and 150. (MRI Data analysis provided by Bloomberg, August 12, 2010.)

[22] The percentage change in BTV's ad revenue as a result of losing distribution on Comcast (based on a loss of viewers and a reduction in CPM as a result of lower viewership) is: (1-ComcastShareOfBTVViewers)*(1-CPMAdjustmentFactor*ComcastShareOfBTVViewers)-1. {{

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those that are 'similar' to integrated networks."[23] In support of this view, they cite (only) an unpublished academic presentation based on work in progress by Gregory Crawford demonstrating that Comcast is more likely to carry channels "targeting black audience" than are rivals to TV One (in which Comcast has ownership interests).[24]

27) This conclusion is not only unsupported by the academic literature, it is not even supported by Comcast's economists. In their rebuttal report, Drs. Israel and Katz conclude:

> "…[M]any existing studies of carriage seek to answer the question: Is a vertically integrated MVPD more likely to carry the networks with which it is integrated than are other MVPDs? There is broad consensus in the literature that … the answer to this question is generally 'yes'… There is also a second question that has been addressed by many existing studies: Is an integrated MVPD less likely than other MVPDs to carry networks that the integrated MVPD does not own? *Some studies have found some evidence in support of this claim, but the overall evidence on the second question is mixed*."[25] (emphasis added)

28) While I agree with the first statement that vertically integrated MVPDs are more likely to carry affiliated networks, the presentation by Drs. Israel and Katz of the second question itself misstates the economics literature. In the abstract to her paper in the *American Economic Review*, Chipty (2001), concludes "…[I]ntegrated operators tend to exclude rival program services, suggesting that certain program services cannot gain access to the distribution networks of vertically integrated cable system operators."[26] In the abstract to their paper in the *Journal of Econometrics*, Waterman and Weiss (1996) conclude "Cable systems owned by the two multiple system operators (MSOs) having majority ownership ties to four major pay networks tended to carry their affiliated networks more frequently and rival networks less frequently than did the average nonintegrated system."[27] In the abstract to their paper in the *Review of Industrial Organization*, Chen and Waterman (2007) conclude "Focusing on four program network groups …, we generally find that integrated cable systems carry their affiliated networks more frequently and carry unaffiliated rival networks less frequently—a pattern identified by previous studies using data prior to DBS or the capacity expansion effects of digital cable."[28] They further conclude, "We

[23] Opposition at p.172.

[24] Opposition at p.172.

[25] Israel and Katz at paragraph 142.

[26] Chipty, T. (2001), "Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry," *American Economic Review* 91(3), 428-453, at p.428

[27] Waterman, D. and A. Weiss (1996), "The Effect of Vertical Integration between Cable Television Systems and Pay Cable Networks," *Journal of Econometrics* 72, 357-395, at p.357.

[28] Chen, D. and D. Waterman (2007), "Vertical Ownership, Program Network Carriage, and Tier Positioning in Cable Television: An Empirical Study," *Review of Industrial Organization* 30(3), 227-251, p.227.

also find that integrated systems that do carry rival networks often position them on digital tiers having more limited subscriber access....”[29]

29) Even the work in progress by Crawford (2009)[30] cited both by Comcast and Drs. Israel and Katz contradicts the claims by Drs. Israel and Katz. Although Drs. Israel and Katz cite slides 43-46 of the work in progress by Crawford (2009),[31] Comcast highlights only the results of slide 43,[32] ignoring the tables on slides 45-46, which demonstrate that Comcast is perfectly willing to foreclose rival distributors access to their integrated regional sports channels in the Philadelphia, the Southeast (e.g. Charlotte, Atlanta), and Washington DMAs.[33] All of this research contradicts Comcast’s claim that “there is no evidence that vertically integrated MVPDs discriminate against genre programming.”[34]

30) While I differ with Drs. Israel and Katz and conclude that the majority of the evidence favors the view that integrated operators discriminate against rival content providers, I share their view that this does not necessarily imply “anti-competitive harms” and that “deeper analysis is needed.”[35] The analysis of Comcast’s incentives to engage in such foreclosing behavior with respect to channel positioning and/or carriage in Section C of my original Report and further developed below, however, demonstrate that this is a likely possibility in the case of participants in the business news programming market, including Bloomberg TV, and that conditions are required in order to prevent its occurrence.

[29] Chen and Waterman (2007) at p.227

[30] Letter from Gregory S. Crawford, University of Warwick, to Marlene H. Dortch, Secretary, FCC, MB Docket No 10-56 (Apr. 28, 2010) (attaching Gregory S. Crawford, The Empirical Measurement of Foreclosure Incentives in U.S. Pay Television Markets, Nov. 29, 2009).

[31] Israel and Katz at footnote 192.

[32] Opposition at pp.172-173. Slide 43 shows that Comcast appears to favor its affiliated network TV One and Time Warner appears to favor BET, which was affiliated with Time Warner from 1980-1995.

[33] In the first two cases, Comcast has previously provided exclusive distribution of their integrated regional sports networks (RSNs) under the so-called “terrestrial exception” to the FCC’s Program Access rules, now eliminated (Dish Network has announced its intention to file a complaint at the FCC against Comcast as a result of this change. “DISH: We will file Comcast complaint over sports,” Philadelphia Inquirer, posted July 30, 2010 (http://www.philly.com/inquirer/breaking/business_breaking/20100730_Dish__We_will_file_Comcast_complaint_over_sports.html, viewed June 30, 2010). In the latter case (not covered by the terrestrial exception), they elect to provide access to their RSN in standard-definition, but not in high-definition.

[34] To my knowledge, these are the only papers in the economics literature that analyze the impact of vertical integration on the decision to carry *rival* program networks. Ford and Jackson (1996) analyze the impact of vertical integration on prices and Goolsbee (2007) analyzes the impact of vertical integration on the carriage of integrated channels, but not on the carriage of their rivals.

[35] Israel and Katz at paragraph 143.

C.2. The analysis of Drs. Israel and Katz when corrected provides evidence of anti-competitive foreclosure by Comcast

31) Drs. Israel and Katz perform three additional analyses in an attempt to show that the general result that vertically integrated cable operators tend to exclude rival program services does not apply to Comcast specifically, or at least that if Comcast does exclude rival program services, then it is not for anti-competitive reasons. Not only is none convincing, but on their own or in some cases with appropriately modest robustness checks, they support the opposite conclusion.

32) Their first analysis is a version of the analytical framework proposed by Austan Goolsbee in a 2007 media ownership study for the FCC.[36] Goolsbee argues that in more competitive markets (i.e. those with high DBS share), it is less likely that distributors will favor their own networks and discriminate against rival content.

33) Drs. Israel and Katz purport to show that Comcast does the opposite of other vertically integrated operators, i.e., that they actually carry more of their networks in markets with high DBS share (and less in those with low DBS share), and argue that this implies Comcast is not behaving in a discriminatory manner.[37] However, a coding mistake by Drs. Israel and Katz resulted in all headends in DMAs without a telco presence being dropped from their regressions.[38] Merely fixing this mistake reverses their result. Based on Goolsbee's approach, the evidence supports "the anti-competitive explanation of [Comcast's] propensity to carry their own networks."[39]

34) For reference, I first reproduce the relevant coefficients from Drs. Israel and Katz's Table VI.1.[40]

[36] Austan Goolsbee, "Vertical Integration and the Market for Broadcast and Cable Television Programming," April 2007.

[37] They, like Goolsbee, do not run similar regressions for carriage of rival channels.

[38] When defining their variables, Drs. Israel and Katz assigned a value of "missing" to the telco_share variable where there was no telco_share. These missing values propagated into their key explanatory variable, the sum of the DBS and telco market shares. When they ran their regressions, their econometrics software (Stata) automatically omitted any observations that were missing, so the regression in the report was run only on markets that had telco entry. That approach, however, is inappropriate because those markets could be systematically different from all cable markets. If one instead defines the telco_share variable to be zero when it was missing (as such markets presumably have no telco entry), the sample size increases from 5,335 to 43,870 observations. Thus the Israel and Katz study omitted 87% of headends in performing the analysis. I provided a letter to the Department of Justice on July 29, 2010, notifying them of the coding mistake in Drs. Israel and Katz's analysis. Comcast later filed an amended regression analysis correcting this mistake (Letter to Marlene H. Dortch, Secretary, Federal Communications Commission from Michael H. Hammer, August 13, 2010) that makes my suggested change.

[39] See Goolsbee (2007, p.26).

[40] In Table VI.1, Drs. Israel and Katz report weighted regressions, with headends weighted by the population of the ZIP code in which the headend operates.

Table 1: Excerpt of Results from Israel and Katz, Table VI.1

VARIABLES	comchan
comcast	-3.15745**
	(0.62655)
comcast_dbstelco	0.11240**
	(0.01334)
dbstelco_share	-0.02520*
	(0.01098)
chan_count	0.05233**
	(0.00709)

35) Drs. Israel and Katz interpret the positive and significant comcast_dbstelco coefficient as showing that Comcast carries its own networks more frequently when there is more competition. They interpret the negative comcast coefficient as implying that "in areas with relatively low DBS share, Comcast is actually *less* likely to carry its own networks than are other MVPDs and that it is *only* in regions with relatively high DBS share that Comcast carries more of its own networks than do other MVPDs."[41] (emphasis in original)

36) However, the corrected version of Table VI.1 provided in Mr. Hammer's letter of August 13, 2010, has the following relevant coefficients:

Table 2: Excerpt of Results from Israel and Katz, Corrected Table VI.1 (August 13, 2010)

VARIABLES	comchan
comcast	1.46278**
	(0.27577)
comcast_dbstelco	-0.01947*
	(0.00788)
dbstelco_share	0.00405
	(0.00858)
chan_count	0.04274**
	(0.00298)

37) Remarkably, although Drs. Israel and Katz originally argued that there was no evidence of anti-competitive carriage decisions by Comcast based on the positive, significant coefficient on the comcast-dbstelco variable and the negative, significant coefficient on the comcast variable in their

[41] Israel and Katz at paragraph 146.